

**MUNICIPALITY OF ANCHORAGE  
HERITAGE LAND BANK**

**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**DRAFT**

**INFORMATION BROCHURE HANDOUT SERIES**

The Municipality of Anchorage is proposing an opportunity to develop commercial recreation facilities, including an 18 hole golf course and related commercial and residential uses, on municipal property managed by the Heritage Land Bank in the southern Girdwood Valley. The Heritage Land Bank has developed this information brochure handout series to provide information to be used in the planning and design process. The fourteen handouts in the series include:

1. GIRDWOOD, ALASKA
2. LAND STATUS
3. FLOODPLAIN
4. STREAM, CREEK AND WATERBODY SETBACKS
5. DEVELOPMENT SUITABILITY
6. WETLANDS
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10. LAND USE -- COMMERCIAL RECREATIONAL, OPEN SPACE
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## FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT IN GIRDWOOD, ALASKA

### INFORMATION BROCHURE HANDOUT SERIES NUMBER ONE OF FOURTEEN

## GIRDWOOD, ALASKA

#### Background

The Municipality of Anchorage is considering the development of commercial recreation facilities, including an 18 hole golf course and related commercial and residential uses, on municipal property managed by the Heritage Land Bank (HLB) in the southern Girdwood Valley. The area being studied for the development encompasses municipal land classified as commercial recreational, commercial, residential, open space, and Public Lands and Institutions, through the Girdwood Area Plan. This commercial recreation facilities development is part of the continuing growth of the Girdwood Valley as Alaska's premiere four season international destination resort area. Development in the Girdwood Valley will be required to maintain Girdwood's unique environmental amenities and community ambience.

#### History

Girdwood thrived as a gold mining town in the late 1800's. Girdwood was established as a supply and transportation center for placer and lode gold mines in and around the Girdwood Valley just before the beginning of the 20th Century. Gold was discovered in California Creek in 1895 and gold was found in Crow Creek in 1896. In 1909, vein deposits were discovered. Some gold mining continues in the area today, but the mainstay of the Valley's economy today is tourism and recreation.

Initially, the Town of Girdwood was located at the mouth of Glacier Creek (adjacent to what is now the intersection of Alyeska Highway and Seward Highway). This location provided a convenient harbor for small boats carrying supplies and crews of miners. Girdwood had a post office established in 1907. By 1910 the community was linked to the railroad (four miles south at Kern Creek) by boat and a trail. It was also linked to Anchorage by the Iditarod Trail. In 1916 the townsite was surveyed and laid out by the Alaska Engineering Commission. In 1918, Girdwood boomed due to the construction of the railroad. Sawmills were located there to fulfill the need for lumber by the railroad. When construction was completed, the railroad connected Girdwood with Seward, the southern terminus of the railroad at the Gulf of Alaska, and Anchorage to the north.

In 1923 Crow Creek Highway was constructed. By the 1930's most of the gold mines in Girdwood closed. In 1949 construction of the Seward Highway along Turnagain Arm linked Girdwood with Anchorage by road. This construction project brought only temporary economic boom to Girdwood.

Access to Girdwood assisted the interest of local ski enthusiasts to develop a small rope tow on the mountain in 1956. The first ski lodge was built in 1960. During the 1960's, Girdwood began a transformation to a recreation/resort community. In the 1960's three major residential subdivisions were located in Girdwood. Alyeska and Alyeska Basin Subdivisions were developed as a mix of primary and secondary homes. Raven Mountain Estates, located in the upper valley, was the third residential subdivision. According to Census information, Girdwood boasted a 1960 population of 63 residents. By the end of the decade that population more than doubled to 144.

In 1961, a municipal incorporation plan was filed. Girdwood had 52 permanent residents and 266 property owners. In September, 1961 local voters approved Girdwood's incorporation as a third class city.

As a result of the March 27, 1964 earthquake, subsidence of as much as five feet placed the townsite under water at high tide. Earthquake related fires destroyed a few of the buildings. As a result, the townsite was relocated to its current location on the Alyeska Highway, between Crow Creek Road and Glacier Creek, approximately 2.5 miles from the original townsite.

In September, 1975, unification of governments within the boundaries of the Borough of Anchorage dissolved the city government of Girdwood. Unification created the Municipality of Anchorage, a home rule municipality. The Municipality of Anchorage inherited the responsibility for providing basic public facilities and services. The Girdwood Board of Supervisors (GBOS) was established as a five-member board to advise the Municipality on the services needed and provided.

The economic boom throughout Alaska, as a result of the construction of the Trans-Alaska Pipeline System (TAPS), was shared by Girdwood. Economic prosperity came to Girdwood. The resident population increased, commercial business ventures grew, second home sales expanded, and visits by recreationalists continued to increase. With the development of Girdwood came the location and expansion of public facilities and infrastructure. By the end of the 1970's, Girdwood's population tripled from 144 to 577 residents.

During the 1980's, the Girdwood resident population increased 93 percent from 577 to 1,115 people. By 1994 the population increased an additional thirty percent to 1,450 people. Although Girdwood has witnessed significant growth in population over the years, as part of the Municipality of Anchorage it currently maintains one-half of one percent of the total population of the Municipality. The seasonal and weekend population of Girdwood dramatically increases due to the recreationalists coming to Girdwood for out-door related recreational opportunities.

Trails throughout the Girdwood Valley provide opportunities for cross country skiing in the winter, and hiking in the summer. Girdwood is home to many recreational and second homes. The Alyeska Ski Resort offers downhill skiing opportunities and continues to develop and expand. Recent improvements include a new day lodge, new lifts, a new detachable quad lift, and general up-grading of the ski trails and parking facilities. In 1994, Seibu Alaska, Inc. opened a new 307 room deluxe hotel, along with a tramway and new chairlift system connecting to the existing ski areas and the Seven Glaciers Restaurant near the top of the mountain.

The Municipality of Anchorage owns in excess of 5,000 acres in the Girdwood Valley, mostly managed by the HLB. The MOA will soon receive an additional 1,000 acres from the State of Alaska (SOA) in the northern Girdwood Valley near the confluence of Glacier, Crow, and Winner Creeks. This will provide the Municipality with ownership to the property proposed to be used as baseland development for future downhill skiing and resort development. This ownership pattern will allow the Municipality to help control the quality, quantity, and timing of future development in the Valley. This control is paramount to, and an integral part of, the Girdwood Area Plan (GAP) as seen in the GAP goals of:

**perpetuating Girdwood's small town atmosphere;  
preserving Girdwood's natural environment;  
providing a variety of year-round recreational opportunities; and,  
providing facilities and services to maintain and enhance the quality of community life.**

One portion of that vision is the development of an 18 hole golf course in the southern portion of the Valley on land owned by the Municipality and managed by the Heritage Land Bank. Through comments and input from the public, the Municipality has identified municipal property in an area located in the southern portion of the Valley between the Alyeska Highway and Alyeska Basin Subdivision, as a possible area for a golf course and related development. It will be necessary to specifically identify which areas will be

preserved due to the sensitive environmental nature of the land, which areas can be optimally developed, and how to integrate and balance the development with the environmentally sensitive areas and other attributes of the Valley.

#### Impacts And Limitations On Development

The amount of acreage eventually developed in the study area will be limited based upon a number of factors. Some of these factors are environmental considerations, including: floodplains; vegetation; wetlands; and hydrology. Some of the factors are legal, including patent requirements, and local, state or federal regulations. Other factors are physical features, including topography, soil suitability, and accessibility.

Municipal regulations require Assembly approval of any sale or lease of HLB property. Prior to the Assembly taking action, the sale or lease must first be subject of a public hearing held by the Heritage Land Bank Advisory Commission (HLBAC). To initiate HLBAC action, the HLB must determine that the property is surplus to municipal needs. This is completed through an internal agency review process, whereby municipal departments and agencies review their current and future needs to see if the land identified for disposal by the HLB should be retained in municipal ownership. As an advisory commission, the HLBAC sends a recommendation to the Anchorage Assembly. The Assembly then sets the project for public hearing, prior to making the final determination concerning the disposal of the property.

Environmental factors influencing the development are further discussed in the accompanying Information Brochure Handout Series. Each of the factors which may impact development within the study area have been mapped on the Municipality's GIS computer system. The maps in this handout series are for illustrative purposes only.

The regulatory process is an important consideration in the development process. Land use controls for Girdwood are currently being reviewed. The Municipality has hired contractors to analyze the Girdwood Valley and develop mountain community zoning ordinances and land use regulations, in accordance with the Girdwood Area Plan. It is anticipated that the local regulatory process will change in the near future. This change is expected to impact the golf course and related development.

#### Taxes

Girdwood maintains a current residential population of approximately 1,450 according to the 1994 population estimates done by the Municipality's Department of Community Planning and Development. This small resort community is included in the taxing authority of the Municipality of Anchorage. Girdwood does not collect taxes separate from the Municipality. The general Girdwood mill rate for 1994 was 11.54 while the mill rate for 1995 has been set at 11.03 mills.

Taxes paid on development will depend upon the value of the development and the real estate. The table below provides, for illustrative purposes only, 1995 tax information on other developments in the Girdwood Valley. Also included in the table is information on the O'Malley golf course which is a leased facility on municipal land close to downtown Anchorage. While this table provides no warranties or estimates of taxes for any portion of the golf course and related development, the table may be useful in understanding the Girdwood Valley tax assessments.

PROJECT NAME	ASSESSED VALUE	ACRES OF PROPERTY	YEAR BUILT	ANNUAL TAXES (1995)
Prince Hotel (1)	*\$ 78,565,020	49.9	1994 (completion)	*\$ 866,572.17
Girdwood Mall	\$ 639,400	1.35	1985	\$ 7,052.58
O'Malley golf course	\$ 2,518,200	200.15	1987	\$ 45,629.78
Alyeska Ski Resort (2)	*\$ 21,418,480	310.6	various years	*\$ 236,245.83
Kobuk Jade Co.	\$ 272,700	0.48	1975	\$ 3,007.88
Double Musky Restaurant	\$ 291,400	1.67	Built 1962 Effect. age 1975	\$ 3,214.14

1. Prince Hotel includes hotel, pool, upper and lower tram, mountaintop restaurant, and parking area.
2. Alyeska Ski Resort includes all chair lifts, ski slopes, support facilities on and at the base of the mountain, and the Nugget Inn.

\*Assessed value appeal is pending.

#### For Further Information

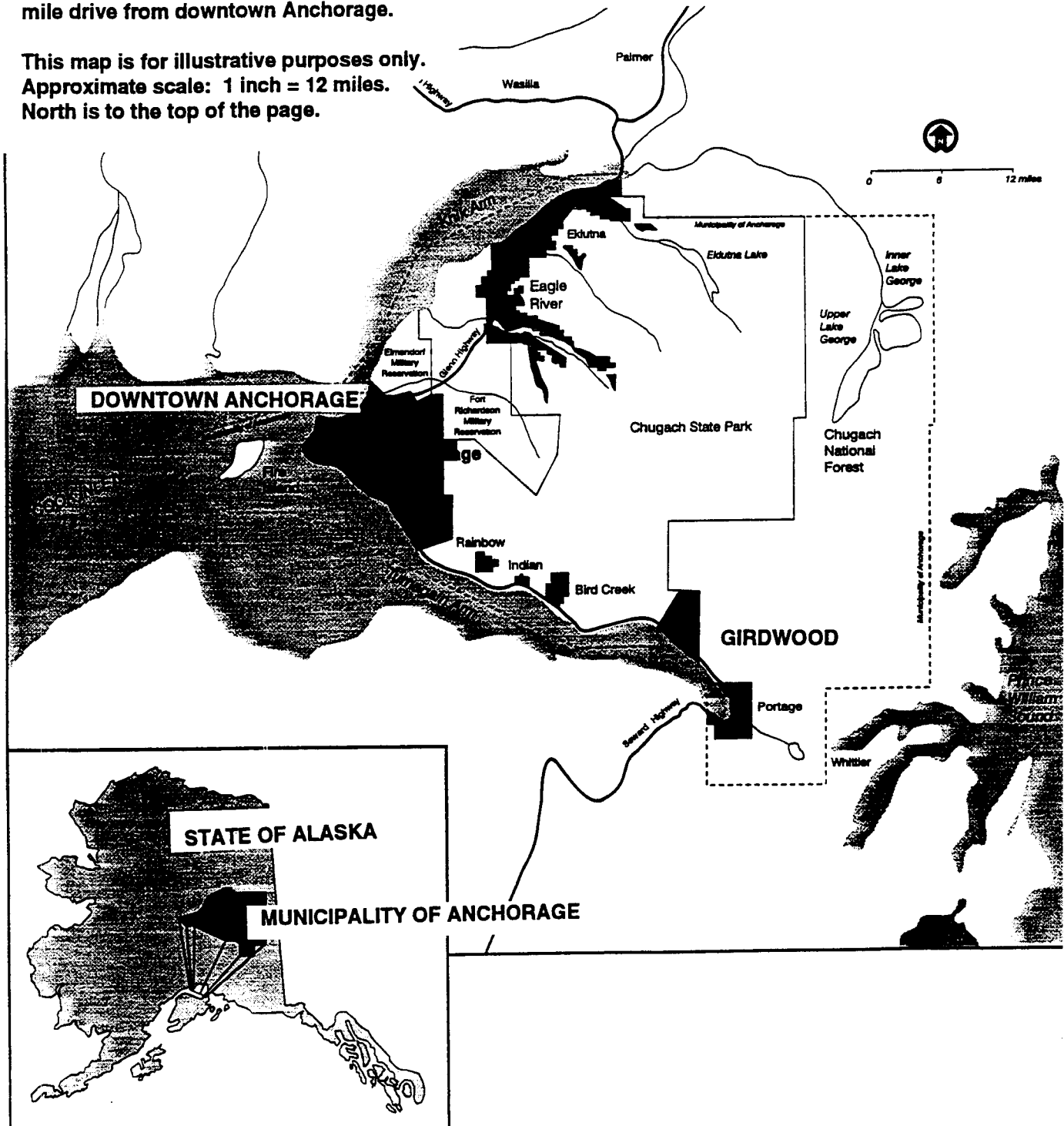
For information on the proposed golf course and related development project, or to discuss information in this packet, contact the Heritage Land Bank, by calling 907/343-4333. Correspondence should be address to the Municipality of Anchorage, Heritage Land Bank, PO Box 196650, Anchorage, Alaska 99519-6650. To send a Fax to the Heritage Land Bank, dial 907/343-4526.

# 1. GIRDWOOD, ALASKA

## INFORMATION BROCHURE HANDOUT SERIES

This map identifies the location of the Municipality of Anchorage within the State of Alaska, as well as the Girdwood Valley within the Municipality of Anchorage. Girdwood is approximately a 42 mile drive from downtown Anchorage.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 12 miles.  
North is to the top of the page.



## FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT IN GIRDWOOD, ALASKA

### INFORMATION BROCHURE HANDOUT SERIES NUMBER TWO OF FOURTEEN

## LAND STATUS

#### Background

The Municipality of Anchorage, Heritage Land Bank, is proposing an opportunity to develop commercial recreation facilities, including an 18 hole golf course, and related commercial and residential uses, on municipal property managed by the Heritage Land Bank (HLB) in the southern Girdwood Valley. The 536 acre project study area for the golf course and related development includes portions of HLB Parcels 6-036, 6-039, 6-058, 6-061, 6-062, and 6-076 through 6-247. These parcels are identified on the attached map which outlines the project study area.

The concept of developing a golf course in Girdwood began in 1965 during the development of the new Girdwood Townsite. In 1986, the Girdwood Board of Supervisors (GBOS) requested that the HLB look into the possibility of a golf course in Girdwood on municipal land. In 1987, Ott Water Engineers and Robert Trent Jones II developed routing plans and analyses of a northern course on USFS property, and a southern course on municipal property known locally as the "Squirrel Cage" Subdivision. In 1989 the HLB hired the National Golf Foundation (NGF) to complete a feasibility study for a golf course in Girdwood.

The 1988 HLB Inventory and the 1993 HLB Inventory, adopted by the Anchorage Assembly, identified the municipal property managed by the HLB, known as the Squirrel Cage Subdivision, as a possible site for a golf course. The Girdwood Area Plan (GAP), which was adopted by the Anchorage Assembly in 1995, recommends that development of a golf course be pursued on municipal property in the southern Girdwood Valley -- specifically the Squirrel Cage area and municipal property to the east.

#### The Project Study Area

The project study area consists of 536 acres of municipal land managed by the Heritage Land Bank located in the lower Girdwood Valley. This study area generally is located between the Alyeska Highway on the west and Alyeska Basin Subdivision on the east.

The 536 acre study area contains land designated as commercial recreational, open space, residential, and commercial. Within the study area are environmentally sensitive areas, including wetlands, creeks, patented setbacks, and public use trail corridors. The Municipality will require the golf course and any related development to be constructed and maintained in such a manner that there is minimal infringement by development on or into these areas.

#### Golf Course Development

The proposed golf course development is anticipated to be located within the study area in a designed manner so as to not infringe on the related commercial and residential areas. It is also anticipated to be designed so that the golf course does not negatively impact the wetlands, wildlife habitat areas, creeks and their setbacks, trail corridors, and other sensitive areas. Infringement or negative impact to these areas would require mitigation, provided the permitting process will allow such infringement to occur. Use of these critical areas for golf course development will require mitigation efforts, and replacement acres elsewhere. Thus, it is important for the developer to understand the high value placed on these areas. Total avoidance of these areas would leave approximately 269 acres available for the golf course --

assuming that development within the floodplains would be permitted, and acceptable to the community as well as the developer.

#### Related Development

Related development on and around the golf course is anticipated to include residential housing, commercial development, summer and winter use trails, limited tourist facilities, and other year-round recreational opportunities. The community has identified the need for cross-country ski trails as part of the future development. The Municipality is currently coordinating activities with state and federal agencies to develop a commemorative section of the Iditarod Trail through the Girdwood Valley along Glacier Creek. The GAP identifies commercial development in the northern end of the Squirrel Cage subdivision.

Related commercial development will be limited to that area in the north east sector of the study area. This area was designated for commercial development by the GAP. Commercial development related to the golf course and this project will be limited to less than 10 acres.

Related residential development will be limited to those areas identified for residential development as identified in the GAP. The main portion of the study area currently designated for residential development is a 14 acre area located at the northwest corner of the intersection of Alyeska Highway and Raune Road.

The patents conveying the land to the Municipality require that public easement and trail corridors of 200 feet in width be established on each side of Glacier and California Creeks, and 25 feet on each side of Virgin Creek. As well, access easements to these water bodies, which could include the Iditarod Trail as well as other skiing, hiking, and access trails through and across the golf course study area, must be reserved. These patent restrictions should be viewed as the minimum setbacks which will be required for this development project. It is anticipated that these setbacks may be increased. In the case of Virgin Creek, a minimum 100 foot setback is anticipated.

A road accessing the Girdwood Valley, as an alternative to the Alyeska Highway, has been discussed for the eastern side of the valley. This must be anticipated by the developer. A road accessing the western portion of the study area through the Squirrel Cage subdivision area should also be anticipated. Any internal streets, trails, and rights of way should also be anticipated and addressed.

#### Current Land Uses

The study area is largely vacant. The study area, and the general Girdwood Valley, is divided east from west by the braided glacial melt-water stream known as Glacier Creek. California Creek flows along the western edge of the study area. These creeks, along with Virgin Creek which enters from and flows along the eastern portion of the study area, flow through coastal type forest growth consisting of western hemlock, sitka spruce, and black cottonwood. This forest growth is mixed with low shrub/scrub vegetation primarily consisting of alder, willow, and devil's club.

At the northern end of the area between Glacier and California Creeks is the Girdwood Townsite Subdivision, also known as the Squirrel Cage Subdivision due to the squirrel cage type circular appearance of the platted lots around each cul de sac. This 157 lot undeveloped subdivision is owned by the Municipality of Anchorage except for three private lots. Although the subdivision does not have public sewer service, a sewer main exists within the right of way of Cottonwood Street. This sewer main connects the development north of the study area with the sewer treatment plant located within the Girdwood Industrial Park, which is located to the west of the study area.

#### Adjacent Land Uses

Along the northern portion of the western boundary of the study area is a section of residential development of approximately 50 residential lots along the Alyeska Highway. This residential development is separated from the golf course site by California Creek, its floodplain and wetlands.



The northern boundary of the study area consists mainly of public land. This land includes open space, dedicated parkland, and public lands for a fire station, a community meeting facility, and emergency medical facilities.

Residential lots in the Alyeska Basin Subdivision border the northern half of the eastern boundary of the study area. The southern half of the eastern boundary of the study area is vacant municipal property.

South of the study area is vacant municipal property. On the eastern side, south of the study area, is the area containing the Virgin Creek wetlands. On the western portion is the municipal property containing the Girdwood industrial area, additional wetlands, and the floodplains of Glacier Creek. The Girdwood industrial area is accessed by Raune Road. This 22.8 acre industrial site is preliminarily platted as the Girdwood Industrial Park. This is currently the home of the Anchorage Water and Wastewater treatment plant and the Anchorage Solid Waste Services transfer station.

#### Land Ownership Patterns In The Girdwood Valley

Girdwood is surrounded by state and federal property. The Chugach National Forest and the Chugach State Park are immediately adjacent to the Girdwood Corporate Boundaries. The project study area identified for the golf course and related development, is surrounded by municipal and private property.

Land owners in the Girdwood Valley include the local, state, and federal governments, as well as private interests. According to the Girdwood Area Plan, the Girdwood Valley consists of slightly more than 14,000 acres. Approximately 16 percent of the Valley is currently developed. Commercial recreational land uses currently encompass over 66 percent of the developed land in the Valley. Analysis of the 11,860 undeveloped acres in the Valley reveals that 43 percent is owned by the Municipality of Anchorage, and the State of Alaska owns 54 percent. Private land owners hold title to just 288 undeveloped acres in the Girdwood Valley.

The Municipality of Anchorage owns in excess of 5,000 acres of property in the Girdwood Valley. The majority of this property is managed by the Heritage Land Bank. Other municipal departments with management authority over municipal property in the Girdwood Valley include Solid Waste Services, Anchorage Water and Wastewater Utility, Department of Cultural and Recreational Services, Anchorage Telephone Utility, Anchorage Fire Department, and Public Works. This pattern of ownership places the Municipality in a position to control the quality, quantity, and timing of much of the future development in the Valley. It is from this position that the Municipality has produced, and/or participated in the production of, a number of reports, documents, and regulations regarding decisions about the future of the Girdwood Valley. The land to be made available for this project includes only land owned by the Municipality of Anchorage.

Future development and community growth, as well as this golf course and related development project, will require public land disposals. Municipal lands can be conveyed to private interests provided the land is determined to be excess/surplus to the needs of the Municipality. Location of public facilities and improvements must be provided for prior to consideration of disposal of municipal property. Municipal property may be leased or sold at fair market value. Specific details regarding the sale or lease of municipal lands may be obtained from the Municipality of Anchorage, Heritage Land Bank.

State owned lands are not included in the project study area. State lands in the Girdwood Valley may be available for future development through the State of Alaska. State lands are available for development by lease and sale. In the lower Girdwood Valley, the State owns and maintains a few small parcels of property for a maintenance facility on the west side of the Valley, and a materials extraction pit on the east side. In the upper Girdwood Valley, the State operates the Girdwood Airport. Lease lots may be available through the Department of Transportation. Also in the upper Valley, well north of the golf course and related development study area, the State owns thousands of acres of land identified for a ski area/four-season destination resort. These lands are identified by the State to be available for development by lease, provided the development was determined to be in accordance with the State's Turnagain Arm

Management Plan. Specific details regarding the State's property within the Girdwood Valley can be obtained from the Alaska Department of Natural Resources, Division of Land.

Federal property exists outside of the Girdwood Corporate Boundary. The Chugach National Forest is immediately adjacent to, and east of, Girdwood. National Forest property may be available for specific but limited types of development, provided such proposed development is in accordance with the Chugach National Forest Land Management Plan. For example, residential community development would not be permitted on the National Forest land, but lodges or proposed ski trails would be in accordance with the Plan and may be permitted. Proposals would be subject to public needs assessments and public input. Proposed development on the National Forest land would be subject to the Forest Service's Special Use Permit process. Specific details regarding the Chugach National Forest can be obtained from the Department of Agriculture, US Forest Service.

#### Near-by Visitor Attractions

##### 1. Alyeska Resort

Northeast of the study area is the Alyeska Ski Resort which has been in operation since 1960. This facility is the training area of Olympic gold medalist Tommy Moe. Alyeska forms a solid foundation of year-round recreational opportunities in the Girdwood Valley. The resort encompasses about 1,180 acres of private, municipal, and state land. The resort currently receives more than 150,000 skier visits annually. Approximately 822 acres are currently considered as ski terrain with 20 year expansion plans to increase to 972 acres. The chair lifts and aerial tram provide service to the mountain. The new five-star Seven Glaciers Restaurant on the mountain is open seasonally. In the summer months, the aerial tram provides visitors the opportunity to dine with spectacular views, or embark on alpine hiking opportunities. The Alyeska lift system has provided service for over 20,000 annual passengers. Alyeska is owned by Seibu Alaska, Inc., a subsidiary of Seibu of Japan, owner of 24 ski areas in Japan and the Prince Hotel chain consisting of more than 40 deluxe hotels in Japan, Hawaii, Alaska, and Canada.

##### 2. Portage Glacier

Alaska's most visited visitor attraction is Portage Glacier, approximately 16 miles south on the Seward Highway from Girdwood. According to the US Forest Service, managing the Begich-Boggs Visitor Center, Portage Glacier boasts 460,000 visits annually. Tour buses and private vehicles bring visitors to the edge of Portage Lake, within view of the glacier and within reach of its calved icebergs. A private tour facility provides boat tours across the lake to give visitors a closer look at Portage Glacier.

##### 3. Winner/Glacier Creek resort

Approximately three miles north of the golf course study area is the area being analyzed for a four season international destination resort. The Municipality of Anchorage will soon receive 1,000 acres of baselands in this area from the State of Alaska. The mountain is projected to provide over 3,000 skiable acres, plus year round glacier skiing. This area is currently under study for development.

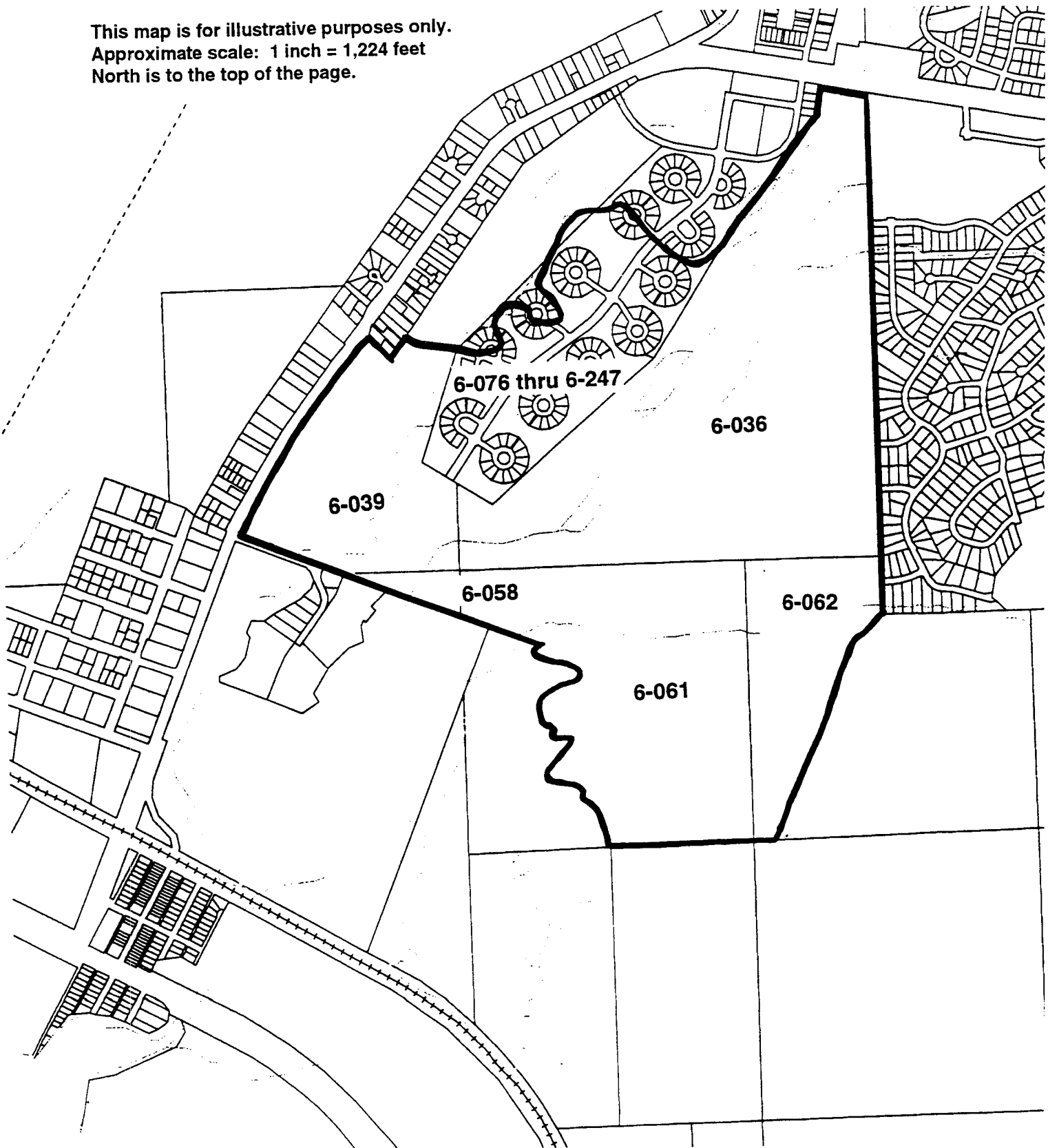
For additional information on land status in the Girdwood Valley, write to the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650, or call 907/343-4333.

## 2. LAND STATUS

### INFORMATION BROCHURE HANDOUT SERIES

This map identifies the study area boundary. The municipal property within the heavy outline is managed by the Heritage Land Bank. This area contains approximately 536 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**INFORMATION BROCHURE HANDOUT SERIES  
NUMBER THREE OF FOURTEEN**

**FLOODPLAIN**

Background

Floodplain information is one of many environmental data bases currently maintained by the Municipality of Anchorage. Glacier Creek is the major water body in the Girdwood Valley. It has a total watershed of approximately 62 square miles. Roughly 8 percent of that area is glacial ice and perennial snowfields. Meltwater from these sources can maintain streamflows even during summer months of little rain. In addition to the meltwater as a source of surface flow of water, additional surface flow is provided by precipitation. The following table identifies the mean precipitation by month for the Girdwood area.

Precipitation

The Arctic Environmental Information Data Center at the University of Alaska indicates Girdwood receives about 39.94 inches of precipitation annually, including 128.6 inches of snowfall. There are two data collection sites in the Girdwood Valley. One site is at the State maintenance facility located in the south west corner of the Valley. The other site is located at the base of the Alyeska ski resort, on the eastern edge of the Valley approximately half way up the Valley. The project study area is generally located between these two data collection sites.

CLIMATOLOGICAL SUMMARY -- GIRDWOOD, ALASKA													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOT
Mean Precip	3.94	3.31	2.17	3.06	1.91	1.72	2.50	2.76	5.03	4.40	4.61	4.54	39.9
Mean # Days Over .5"	2.3	2.1	1.0	2.0	0.5	0.4	1.2	1.8	3.0	3.0	2.2	2.8	22.2
Mean Temp F	19.8	24.0	25.2	36.4	45.5	54.3	56.2	54.2	47.1	34.0	23.4	17.1	36.4

The key point of including this climatological information table is to identify the precipitation received in the Girdwood Valley. This precipitation, and meltwater from the almost 5 square miles of perennial snowfields and glacial ice, are drained from the area through the watershed of Glacier Creek. Periods of high precipitation and/or high meltwater flows increase the potential for flooding in the Valley.

Glacier Creek drains into the Turnagain Arm of the Cook Inlet south of the study area. Glacier, California, and Virgin Creeks are most prone to flooding as a result of heavy rainfall or rapid snowmelt. Additional flood problems and hazards may occur from materials, logs, and trees being swept downstream with floodwaters to create jams, change river channels, erode banks, threaten bridge structures, and cause changes in direction, volume, and velocity of the water. The most recent major flood in the Girdwood Valley occurred in the Fall of 1995.

### Floodplain

Approximately 188 acres within the study area are considered to be within the floodplain formed by Glacier and California Creeks. The Federal Emergency Management Agency (FEMA) has maps available indicating flood hazard boundaries for the Municipality of Anchorage. The study area is contained on panel 505 and 510 of 625. FEMA does not map a floodplain for Virgin Creek, although the wetlands of Virgin Creek south of the study area are mapped by FEMA as part of the Glacier Creek floodplain.

The 188 acres of floodplain in the study area include the areas of 100 year flood where flood hazard factors have been determined by FEMA. Also included are the areas between the 100 year flood and the 500 year flood hazards. The majority of the area is subject to shallow flooding where depths are between one and three feet.

It is important to analyze the floodplain boundaries in the study area and those areas identified for proposed commercial, industrial, and single family residential development as defined by the Girdwood Area Plan (GAP). The proposed single family residential area along Alyeska Highway is west of the floodplain boundary. The proposed commercial area on the northern portion of the Squirrel Cage subdivision is partly impacted by floodplains.

Heritage Land Bank (HLB) Parcel 6-036 and Parcel 6-062 contain the largest portions of the proposed commercial recreational area, as described in the GAP. There is no floodplain identified by FEMA within Parcel 6-062 related to Virgin Creek.

Golf course development can and does occur successfully in floodplains throughout the United States by careful design and construction. Correct placement of swales and the proper design of drainage systems can help to reduce risks, as well as to continue to enhance the environmentally sensitive areas. Alterations to the floodplain by filling or dredging will require in-depth analysis. Development activities within the floodplain will require a floodplain hazard permits. This permit can be obtained from the Municipality of Anchorage, Department of Public Works.

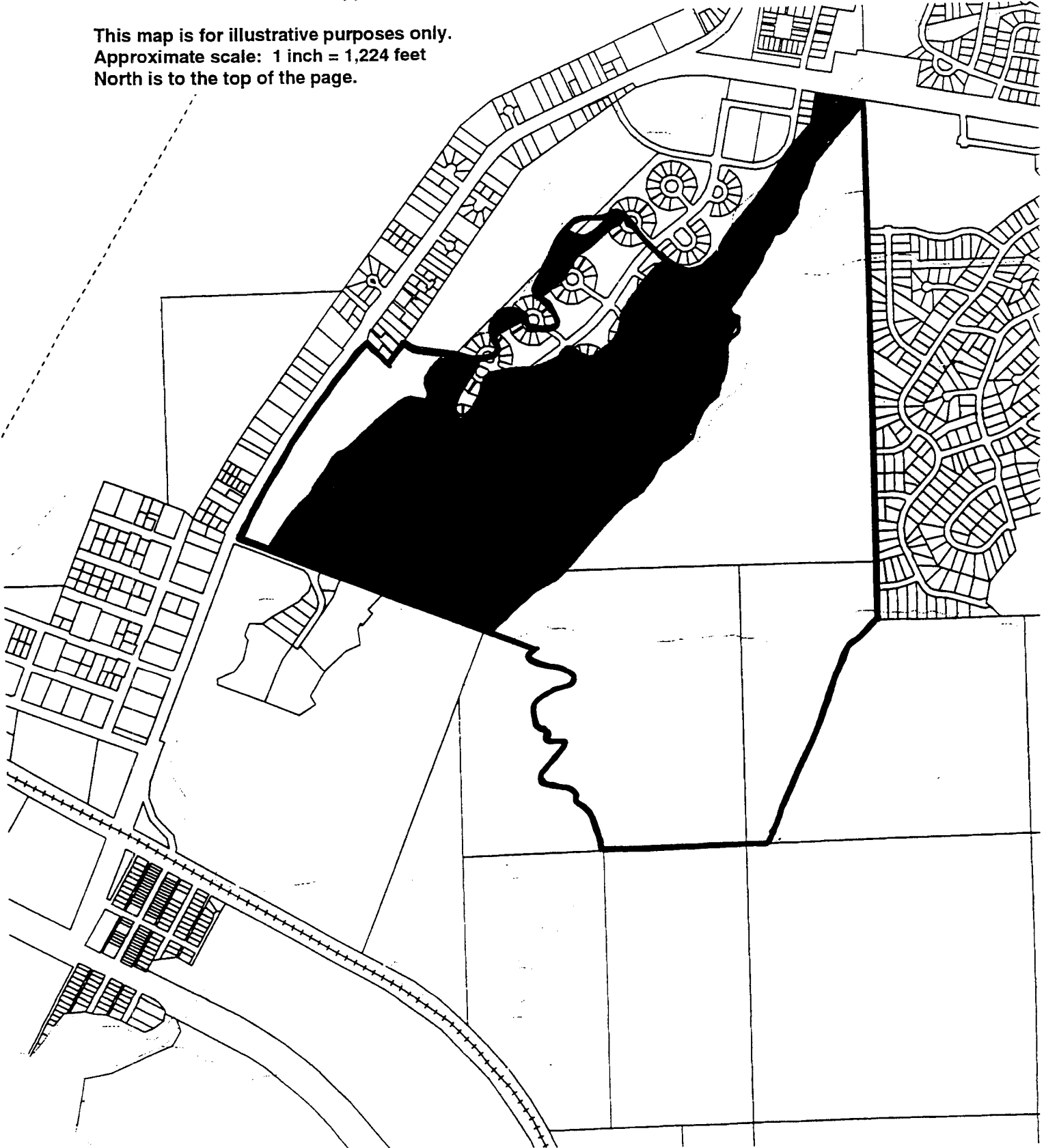
For additional information on floodplains, please contact the National Flood Insurance Program by calling 800-638-6620. Information on floodplains may also be obtained from the Municipality of Anchorage by writing to the Department of Public Works, PO Box 196650, Anchorage, Alaska 99519-6650.

### 3. FLOODPLAIN

#### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the floodplain of Glacier and California Creeks. This area contains approximately 188 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDSWOOD, ALASKA

INFORMATION BROCHURE HANDOUT SERIES  
NUMBER FOUR OF FOURTEEN

## STREAM, CREEK AND WATERBODY SETBACKS

### Background

The study area includes three predominant waterbodies: Glacier Creek; California Creek; and, Virgin Creek. Each of these creeks is considered anadromous, and therefore important for fish habitat. These three creeks are part of the approximately 62 square mile watershed drainage of Glacier Creek.

Stream setbacks, the location of the streams, and public easements to, and along, streams are important considerations for this proposed golf course and related development project. The setbacks and easements are a requirement of the patent conveying ownership from the State of Alaska to the Municipality of Anchorage. The setbacks shown on the accompanying map contain approximately 138 acres.

### Public Easements

The Municipality of Anchorage (MOA) was conveyed property within the study area by three patents from the State of Alaska (SOA). Patent 5451 conveyed 2,136.31 acres and Patent 756 conveyed 146.391 acres. The parcels identified on the base map as HLB Parcels 6-036, 6-039, 6-058, 6-061, and 6-062 were conveyed on January 30, 1981 through Patent 5451. The "Squirrel Cage" subdivision area, known as HLB Parcels 6-076 through 6-247, were conveyed on January 30, 1981 through Patent 0756. Only Patent 5451 specifically identifies the perpetual public easements along the creeks. The HLB will require that the setbacks established by Patent 5451 be maintained for the property within this study area, so that consistent and continual public access will be available to the streams, creeks, and waterbodies throughout the study area.

Glacier Creek is the dominant of the three creeks. It divides the study area, east from west. The patented reservation along the ordinary high water mark is a 200 foot wide lineal perpetual public easement, running along each side of the creek. Thus, the public easement area includes the not only the total of 200 feet on each side of the creek, but also the braided river bed, too. At its widest point in the study area, this is approximately 900 feet wide.

California Creek runs along the western border of the study area. It flows north to south through the study area until it turns east and flows into Glacier Creek. The confluence of California and Glacier Creeks is at the southern edge of the study area, immediately north of the Alaska Railroad Right Of Way. California Creek has a patented 200 foot perpetual public easement, along each side, measured from the ordinary high water mark of the Creek.

Virgin Creek is located on the eastern side of the study area. Virgin Creek enters the study area from the east, turning south, and finally winding through an area flooded by beaver dams, draining into the Turnagain Arm east of Glacier Creek. Virgin Creek does not directly drain into Glacier Creek. Patent 5451 requires a 25 foot wide lineal perpetual public access easement along both sides of Virgin Creek.

These patent setbacks place corridors along each of these creeks. The patent instructs that these easements are to conform with the way the creeks are portrayed in a number of documents: the

Dependent Resurvey of the NE Boundaries of US Survey 1177 and 4805, adjoining US Survey 3603 for Township 10 North, Range 2 East, Seward Meridian, Alaska, accepted by the Department of the Interior, Bureau of Land Management on April 6, 1971; the amended Supplemental Cadastral Survey Plat of Township 10 North, Range 2 East, Seward Meridian, Alaska, filed in the Anchorage Recording District on November 14, 1973 as Plat 73-220; and, the official survey plat of US Survey 3042, Girdwood Small Tract Group, Embracing Lots 1 to 10, Inclusive, and Lots 71 to 104, Inclusive, accepted by the US Department of the Interior, Bureau of Land Management on April 13, 1951.

PATENTS CONVEYING PROPERTY TO THE MUNICIPALITY OF ANCHORAGE IN THE GOLF COURSE STUDY AREA IDENTIFYING REQUIRED PERPETUAL PUBLIC EASEMENTS					
HLB Parcel #	Acres	Tax ID #	Patent #	Total Acres Conveyed By Patent	Easements
6-036	207.8	07510401	5451	2,136.31	Yes
6-039	69.9	07509101	5451	2,136.31	Yes
6-058	4.9	07513102	5451	2,136.31	Yes
6-061	157.1	07520102	5451	2,136.31	Yes
6-062	140.0	07520101	5451	2,136.31	Yes
6-076 thru 6-247	84.9	Multiple	756	146.39	No

#### Public Access Easements

In addition to the perpetual public easements along the three creeks, Patent 5451 also requires fifty (50) foot wide perpetual public access easements to the lineal public easements along Virgin, California, and Glacier Creeks. The patent requires that no development or conveyance shall occur on the land conveyed by the patents until the Municipality of Anchorage has platted such easements and formally notified the State of Alaska of the location of the access easements. The State is not required to respond or comment on the location of the access easements, however, their involvement can be key. State involvement in the Girdwood Industrial Park project enabled the Municipality to reduce a portion of the California Creek easement to 125 feet from the patented 200 feet.

Patent 5451 conveyed 2,136.31 acres to the Municipality, and restricts the development or disposal of any of that land until the easements are platted. It is likely that the patent requirement will be handled through the Municipality's platting process. Disposal of the property for the golf course and related development will be contingent upon submittal of a plat agreed to jointly by the developer and the Municipality.

The disposal process of land managed by the Heritage Land Bank includes opportunities for public hearings. Title 25 of the Anchorage Municipal Code contains the municipal regulations related to use of public property. In addition to the requirements and policies of disposing of municipal land managed by the HLB, all patent requirements must be fulfilled. Therefore, the HLB will be working closely with the developer to ensure optimal public access to Virgin, Glacier, and California Creeks via platted public access easements.

The specific language of the patent is attached to this handout.

#### For Additional Information

For additional information regarding information addressed in this, or any other handout within this series, please call the Heritage Land Bank at 907/343-4333. You may write to the Heritage Land Bank by addressing correspondence to the Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650. Fax materials to the Heritage Land Bank by dialing 907/343-4526.



The following language is quoted directly from  
**PATENT 5451**  
January 30, 1981

Know All Men By These Presents that the State of Alaska, in consideration of the sum of Ten Dollars lawful money of the United States, and other good and valuable considerations, now paid, the receipt whereof is hereby acknowledged, does hereby grant to the Municipality of Anchorage and to its successors and assigns, all that real property situated in the Municipality of Anchorage, State of Alaska, and described as follows:

Subject to the reservation of a 200 foot wide lineal perpetual public easement along both sides of the line of ordinary high water mark of California and Glacier Creeks and a 25 foot wide lineal perpetual public easement along both sides of Virgin Creek as portrayed on the Dependent Resurvey of the NE Boundaries of US Survey Nos. 1177 and 4805, adjoining US Survey 3603 for Township 10 North, Range 2 East, Seward Meridian, Alaska, accepted by the Department of the Interior, Bureau of Land Management in Washington, D.C., on April 6, 1971; as portrayed on the amended Supplemental Cadasral (sic) Survey Plat of Township 10 North, Range 2 East, Seward Meridian, Alaska, filed in the Anchorage Recording District on November 14, 1973 as Plat No. 73-220; and as portrayed on the official survey plat of US Survey No. 3042, Girdwood Small Tract Group, Embracing Lots 1 to 10, Inclusive, and Lots 71 to 104, Inclusive, accepted by the US Department of the Interior, Bureau of Land Management in Washington, D.C., on April 13, 1951 and further subject to the reservation of a 50 foot wide perpetual public access easement to the aforementioned lineal public easement along each of the above bodies of water. Said public access easement shall be identified by the Grantee and shall be subject to the covenant that no development or conveyance shall occur on the land conveyed by this patent until the Grantee has platted such easements and formally notified the Grantor of the location of such public access easements.

### **EXHIBIT A**

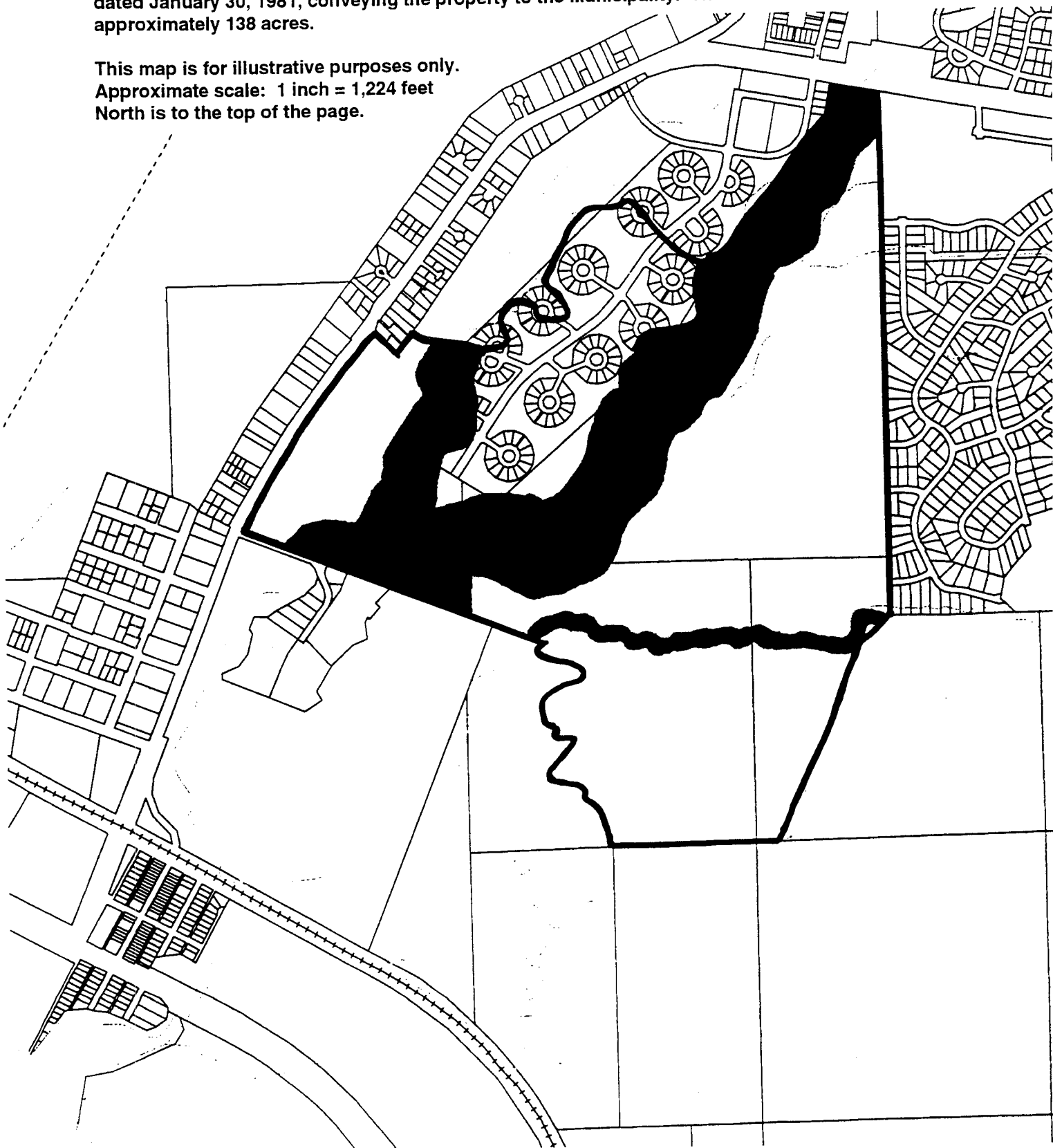
Patent 5451 conveys 2,136.31 acres of property from the State of Alaska to the Municipality of Anchorage, in the southern Girdwood Valley. The patent contains specific language regarding public easements along and to California, Virgin, and Glacier Creeks. This exhibit displays the language directly from the patent.

## 4. STREAM, CREEK, AND WATERBODY SETBACKS

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the setbacks established by Patent 5451, dated January 30, 1981, conveying the property to the Municipality. This area contains approximately 138 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



## FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT IN GIRDWOOD, ALASKA

### INFORMATION BROCHURE HANDOUT SERIES NUMBER FIVE OF FOURTEEN

## DEVELOPMENT SUITABILITY

#### Background

The chief landform features of the Girdwood Valley are the result of ice sculpting that occurred during glacial advances and retreats. The upper Valley is narrower with more hummocky terrain forcing the creeks into deep, tightly defined gorges. The lower Valley is wider with flatter terrain. Much of the lower Valley is included within floodplains of the creeks. Initially, the lower Valley was also shaped by glacial action. As a result, the lower Valley contains poorly sorted mixtures of glacier deposits with overlaying fine-grained deposits which resulted from the water of Turnagain Arm invading the valley when the glaciers were receding.

Unconsolidated sediments overlie the Valley's bedrock. In 1974, the US Geologic Survey (USGS) reported that the unconsolidated materials in the Girdwood Valley were distributed in a complex manner due to the repeated and interrelated effects of glaciers, marine water of the Turnagain Arm, and the melt-water streams (Glacier, California, and Virgin Creeks). Alluvial deposits cover the vast amount of the study area. For those low areas along Glacier Creek, the USGS reports that the materials may be excellent for foundation conditions and may be good for construction materials. Glacial or marine diamiction, estuarine deposits, and peat also are identified within the study area, most notably corresponding with wetland areas. Site specific borings will be required to further locally refine these findings.

#### General Information Sources

Soils information for the Girdwood Valley is general in nature. This general level of data makes interpretation of it difficult for a site specific level. Reports are available, providing general knowledge of the soils and their characteristics. In 1963, the State of Alaska reported on the results of materials exploration and testing on the reconstruction of the Alyeska Highway in Materials Report Girdwood To Alyeska. Project #S-0501(1) 9/63. Other generalized information is contained in the US Geological Survey's (USGS) Geology and Water Resources Of The Girdwood-Alyeska Area (1974), and the Corps of Engineers' Anchorage Area Soil Survey (1979). The Kenai Road Corridor Soil Survey was completed in 1989 by the US Forest Service (USFS). This report was designed to provide soil survey information on USFS property one-half to three-quarters of a mile on either side of the major road corridors. This report discusses land to the north of the study area. Information contained in report may be applicable to the study area. The most site specific information is available in Geotechnical Investigation Girdwood Borrow Site. Girdwood, Alaska (1992) which was completed by Harding Lawson Associates (HLA) in 1992 to obtain geotechnical information to determine the suitability of municipal land south of Virgin Creek as a source of gravel. HLA drilled and sampled 19 borings within a 45 acre area.

#### The Site Specific HLA Geotechnical Investigation

In 1992, a 45 acre area within the study area was the subject of 19 borings, each approximately 20 feet deep. The results of these borings showed that the ground surface is covered with a thin organic mat, generally less than one foot thick. Beneath this organic mat is sandy gravel containing varying amounts of silt.

The 45 acre gravel test site lies within the alluvial fan of Virgin Creek. Portions of this alluvial fan are outside of the commercial recreation facility study area boundary. Over the gravel test area, fifty-nine (59) percent of the soils encountered were classified as gravel. The remaining forty-one (41) percent consisted of the organic mat and random zones of sand and silt. Consistent with the geologic deposition of the site, there was no distinct layering of non-gravel soils found. Assuming that excavation of gravel would occur only above the water table, approximately 500,000 cubic yards of gravel were identified as available. Excavation below the water table, creating lakes and ponds for other uses such as salmon rearing and enhancement projects, would yield significantly more gravel.

Groundwater was located at depths ranging from one to approximately twenty feet, depth being directly related to how far the borings were moved up slope. Due to the porous nature of the soils, the virtually unlimited recharge available from the adjacent snowfields and glaciers, and the gradient, the rate of groundwater flow is believed to be substantial.

#### Conclusion

The accompanying map generally identifies areas totalling 164 acres within the 536 acre project study area that have been identified by the Department of Community Planning and Development as generally unsuitable for development. This designation was not developed strictly on soil conditions. In addition to soils information, the designation was developed in conjunction with information on wetlands, slope, floodplains, and the like.

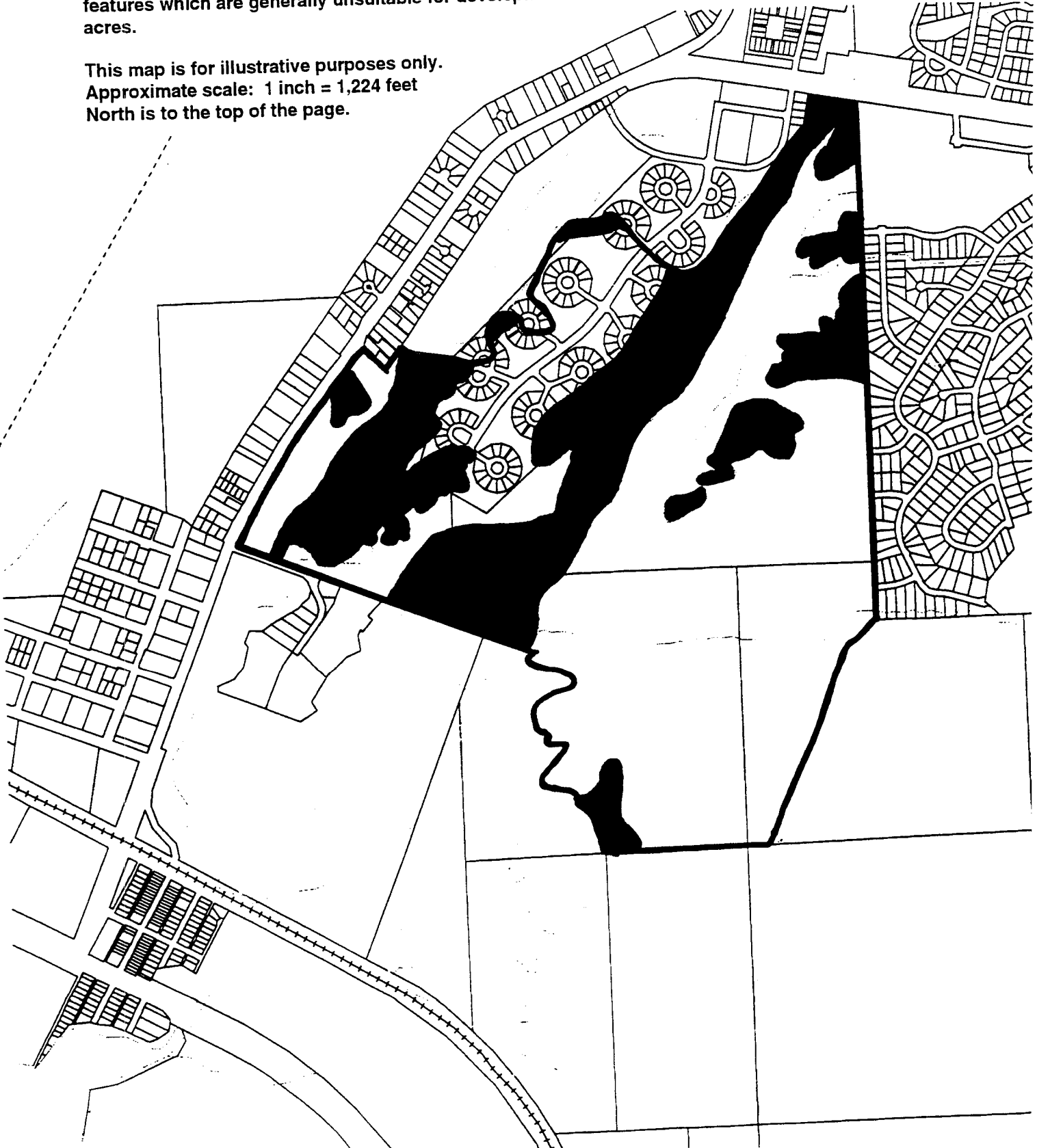
Further information on the soil suitability analysis can be obtained from the Department of Community Planning and Development. Further information on the various soils reports referenced above can be obtained from those specific agencies.

## 5. DEVELOPMENT SUITABILITY

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the study area identified as having natural features which are generally unsuitable for development. This area contains approximately 164 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



## FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT IN GIRDWOOD, ALASKA

### INFORMATION BROCHURE HANDOUT SERIES NUMBER SIX OF FOURTEEN

## WETLANDS

### Background

Much of the land along Glacier, California, and Virgin Creeks in the lower Girdwood Valley contains designated wetlands. Within the study area, and identified on the accompanying map, approximately 75 acres are classified wetlands. That is approximately forty percent of the study area. Therefore, the golf course and related development must be designed in such a manner as to maintain the environmental integrity of the lower Valley and avoid or enhance the wetlands. Currently the lower Valley is largely undeveloped.

### Types Of Wetlands

According to the Anchorage Wetlands Management Plan, the three types of wetlands in the lower valley are: floodplain wetlands; open peat bogs, and intertidal wetlands. The floodplain wetlands provide valuable flood control, water quality, and fish habitat functions. Floodplain wetlands occur within the study area predominately along California Creek, between Glacier Creek and the Alyeska Highway. Virgin Creek impacts a large area of floodplain wetlands, however, this area is largely south of the study area. Lastly, open peat bogs are concentrated on the east side of the Girdwood Valley. Examples of these wetlands can be found on the east edge of the study area along Alyeska Basin Subdivision. Intertidal wetlands are predominantly found south of the study area.

### The Anchorage Management Wetlands Plan

The Anchorage Wetlands Management Plan (AWMP) is in transition. The AWMP was originally adopted by the Anchorage Assembly during April, 1982. During 1995 the Municipality of Anchorage presented the AWMP 10-Year Revision to the Assembly for adoption. After public review, comment, and hearings, the Assembly postponed further public hearings until February 13, 1996. On February 13, 1996 the Assembly is scheduled to revisit AO 95-129, an ordinance which proposes the adoption of the AWMP 10-Year Revision. The AWMP currently in use is the 1982 Plan. However, during public testimony to the Anchorage Assembly, the Corps of Engineers (COE) stated that the state and federal review agencies are using the updated information which was presented in the 1995 AWMP. The updated information created a number of changes from the 1982 to the 1995 Plan. Some of these changes included re-designation of wetlands, analysis of areas and designation of wetlands for the 1995 Plan which were not included in the 1982 Plan, and changes for maintaining consistency with the State Coastal Zone Management regulations. The 1982 and 1995 AWMPs can be obtained from the Department of Community Planning and Development.

The 1995 AWMP designates wetlands in an A, B or C category. Except for those wetlands in the far northeastern corner of the study area, the wetlands throughout the lower Girdwood Valley are designated Class A wetlands. Those in the far northeastern corner are designated Class C. The Plan states, "C wetlands are the lowest value wetlands in the Municipality. Some C sites may have moderate values for one or more wetland function, but they generally have reduced or minimal functions and/or ecological values. Such sites are suitable for development with only minor alteration and are to be generally managed to reflect the needs for community expansion and infilling. C sites are intended to be permitted under General Permit authorization from the Municipality."

According to the 1995 Plan, Class A wetlands make up the majority of wetlands in the Girdwood Valley. Class A wetlands were formerly known as preservation wetlands. The Plan states, "A wetlands have the highest wetland resource value. A wetlands are considered most valuable in an undisturbed state, as most uses or activities, especially those requiring fill, negatively impact known wetland functions." Class A wetlands are not to be altered or otherwise disturbed in any manner, except as outlined in the Plan. Fill proposals can be reviewed and entertained, under the Individual Section 404 Permit. This would typically apply to utility, road or trail crossings, or park amenities. When conditions exist that call for the possibility of filling Class A wetlands, that fill must be limited to the square foot needed for a principle structure and access, in accordance with the R-11 zoning in Girdwood. The intent of the exception is to provide a possible avenue for a developer to receive some economic use of property that is otherwise wetlands. All fill permit requests must comply with Section 404 guidelines, and any mitigation requirements. For purposes of mitigation, on-site enhancement is top priority with acquisition receiving a second priority.

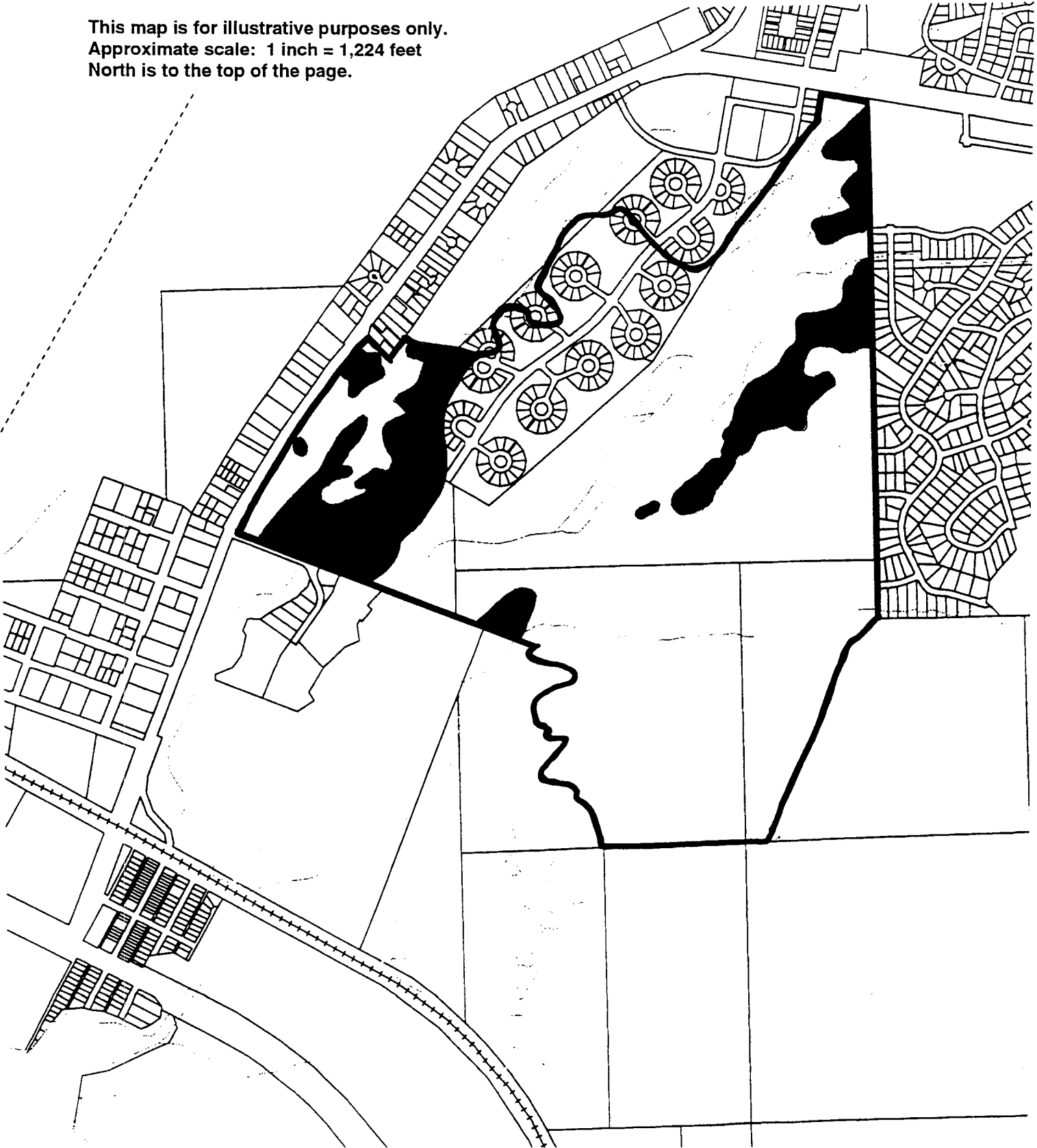
Fill permits for projects in Preservation, or "A", wetlands have historically been reviewed by the Corps of Engineer's (COE) Individual Permit Review and numerous public projects have been authorized. These have typically included public infrastructure activities, including roads, utilities, trails, institutional structures, and park amenities. Many of these projects, and especially the trails and park permits, have minimized wetland impacts and gained COE approval by avoiding fills in high value subsections of a particular site, or by providing off-setting compensatory mitigation. Although the AWMP discourages fill actions in Preservation, or "A", wetlands, it is not inconceivable that a permit for limited fills for a future golf course and related amenities could be obtained. This is especially possible if fills are limited to essential components of this public project, if higher value areas are avoided, and if the golf course is designed to include wetland habitat enhancement.

## 6. WETLANDS

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the study area which are classified as wetlands. This area contains approximately 75 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.





FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA

INFORMATION BROCHURE HANDOUT SERIES  
NUMBER SEVEN OF FOURTEEN

**SLOPE**

Background

As with any site selection analysis for a major development project, slope is one of the prime consideration. By reviewing floodplain information and the general geological characteristics of the Girdwood Valley, it is easy to see that the wider, lower Valley lacks significant areas of steep slopes. The steep slopes in the lower Girdwood Valley are along the valley edges where the valley floor meets the sides of the Chugach Mountains.

Slope

The terrain within the study area is relatively flat, with little topographic relief. Thirty-five percent of the study area is contained within the floodplains of California, Glacier, and Virgin Creeks.

For purposes of development, the study area was analyzed, mapping those areas with slope greater than sixteen (16) percent. These areas were identified as areas to avoid during development because of possible environmental degradation and the visible nature of the sloped areas. The area of steepest slope is outside of the eastern side of the study area, ascending the mountains of the Chugach Range. This is the most visible portion of the study area from the Seward Highway, the Alyeska Highway, and other points within the Girdwood Valley and Turnagain Arm. Removal of trees from this area could be highly visible and not in keeping with the community atmosphere. The possibilities of environmental degradation also exist because of the water flow and drainage patterns of the areas of steepest slope. Disturbance of the earth and vegetation may create erosion issues detrimental to wetlands and anadromous streams.

Areas with a slope greater than sixteen percent area identified on the accompanying map. Within the study area, 21 acres are classified as having slope greater than 16 percent. One of the remaining areas, containing 16 acres, is a ridge formation east of Glacier Creek between the creek and Alyeska Basin Subdivision. This area would not necessarily be considered off-limits to development, but if developed, would be required to be worked into the development in a manner that would result in no loss to its character, and so it would be an enhancement to the lower valley.

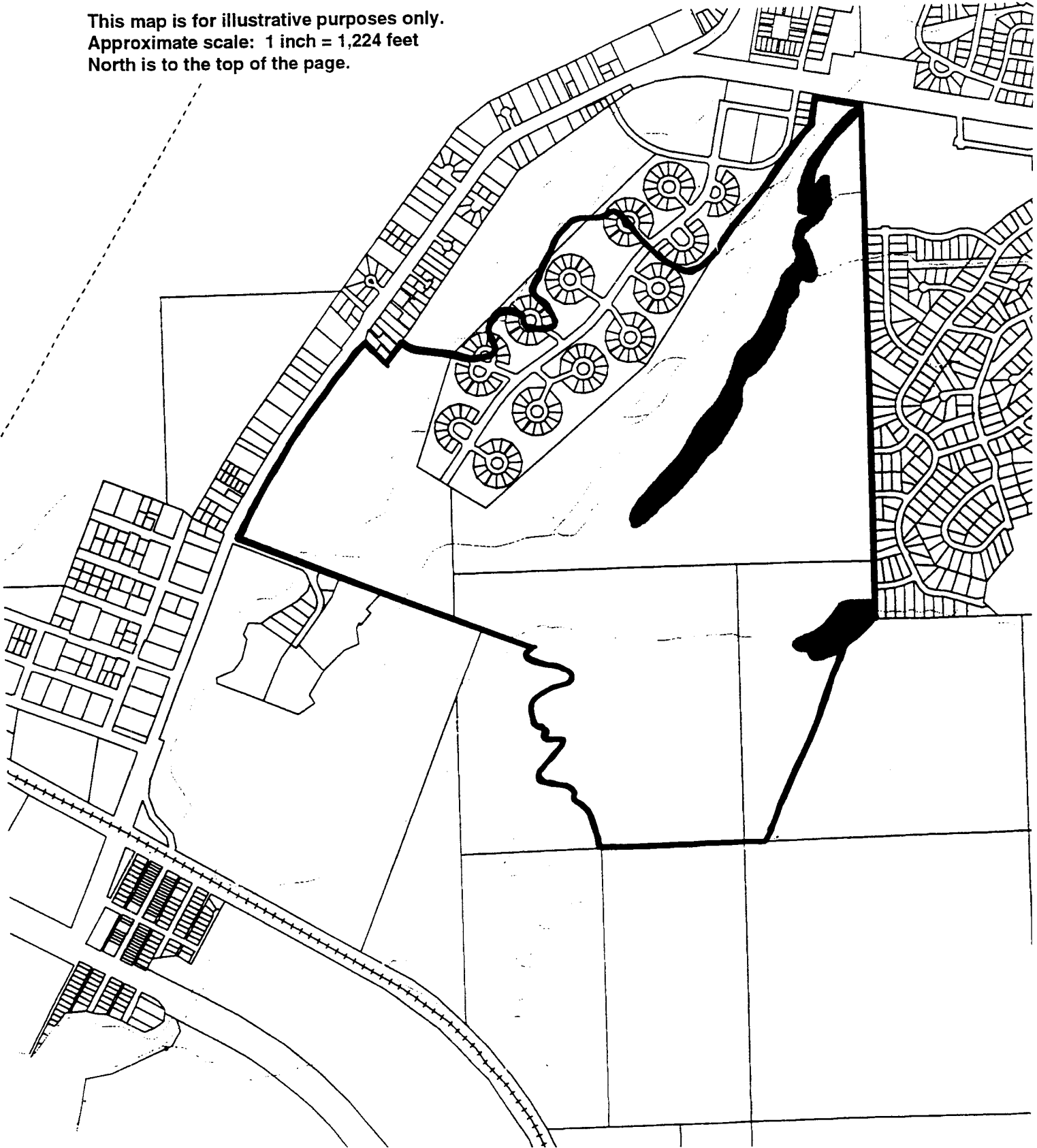
Other areas of steep slope are identified on the map, too. These areas along the western fringe of the study area are not anticipated to impact the golf course and related development.

## 7. SLOPE

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the study area with the slope calculated greater than sixteen (16) percent. This area contains approximately 21 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**INFORMATION BROCHURE HANDOUT SERIES  
NUMBER EIGHT OF FOURTEEN**

**TRAILS**

Background

In 1985, the Anchorage Assembly adopted the Anchorage Trails Plan. The Municipality, Department of Planning and Development, has drafted a 1995 plan which has been the subject of public review, comment, and hearings. Revisions are currently being made on the study. Once these revisions are reviewed and the plan is adopted by the Alaska Department of Transportation, the plan will be the subject of public review, comment, and hearings before the Anchorage Assembly. The Assembly hearings are anticipated in early 1996.

Anchorage Municipal Code allows the public to use vacant, unimproved municipal property on an interim basis for park and recreational purposes provided that such action shall not be deemed to be a formal designation of the property. Proper integration of trails in the project will enhance the environment, provide public access to specific areas, improve vistas, enhance transportation, and generally tie the development with the community with the environment.

Trails across municipal land managed by the Heritage Land Bank (HLB) are required to have a Special Land Use Permit (SLUP) issued by the HLB office. The SLUP lists the terms and conditions under which the use of the land for trails is authorized. Standard language of trail SLUPs executed by the HLB reveals that the trail users/applicants and the HLB agree that current trail locations are not permanent. The HLB is committed to maintain public access to the streams and water bodies in the lower Girdwood Valley. No trails within the study area currently have SLUPs issued or approved by the HLB.

Commemorative Iditarod Trail

The Iditarod National Historic Trail (INHT) is now a network of more than 2,300 miles of trails across Alaska. A portion of the INHT runs through the Girdwood Valley from tidewater at the southern end of the Valley to Crow Pass, at the northern end. While patents for conveyance of land from the federal government require protection of the Iditarod Trail, exact location of the trail is largely unknown. Recently, agencies of the federal, state, and local governments, the Girdwood Board of Supervisors, and the Alyeska Resort created a joint venture and a cooperative agreement to develop a continuous commemorative trail corridor through the Girdwood Valley, with connecting trails. Based on a public process, the corridor selected in the lower Valley will be along Glacier Creek. This will allow the trails to be within the perpetual public access easement along the creek required by the patent.

Integration Of Trails

It is envisioned that the INHT, required golf cart paths, and other recreational trails may co-exist within the golf course and related development. It is anticipated in some instances one trail could serve all needs, and in some instances multiple trails would serve multiple needs and uses. Due to the expense of crossing Glacier Creek, and the need to reduce the crossings for aesthetics reasons, various trails will likely be combined. The patents conveying property to the Municipality provide for perpetual public easements along the creeks, as well as to the creeks. Those access easements to the water bodies must be platted prior to disposal of the municipal property, by sale or lease, for the development. The Heritage Land Bank will require the complete cooperation of the developer and the community for the integration of the various trails throughout the lower Girdwood Valley as they mingle with the proposed development.

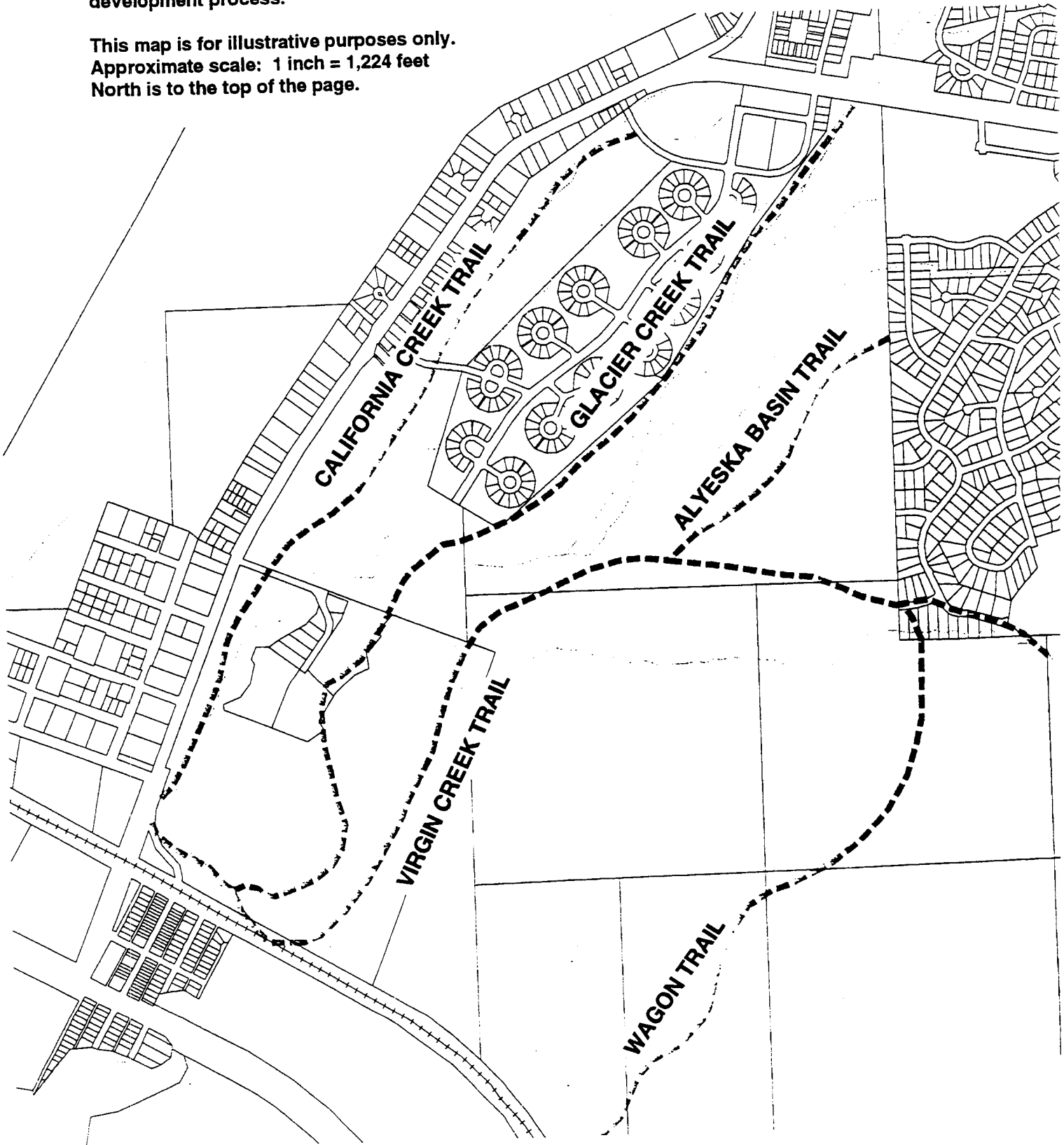
The accompanying map identifies recognized trails crossing the golf course study area. For the most part, these trails are within, or apparently can be placed within, the areas described on the patents, requiring public access such as the creek setback required by the patent conveying the land to the Municipality.

## 8. TRAILS

### INFORMATION BROCHURE HANDOUT SERIES

The dotted lines across the property included within the study area identifies the approximate location of recognized trails. The exact location of the trails may be negotiated as part of the development process.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA

INFORMATION BROCHURE HANDOUT SERIES  
NUMBER NINE OF FOURTEEN

LAND USE -- RESIDENTIAL, COMMERCIAL

Background

The study area consists largely of vacant, unsubdivided property owned by the Municipality of Anchorage and managed by the Municipality's Heritage Land Bank (HLB). The property managed by the Heritage Land Bank is known as HLB Parcels 6-036, 6-039, 6-058, 6-061, 6-062, and 6-076 through 6-247. The 1988 and the 1993 Heritage Land Bank Inventory, adopted by the Anchorage Assembly, identified future and proposed uses for the land. The Girdwood Area Plan (GAP), adopted by the Assembly, identifies mostly commercial recreational and open space uses for the land in the study area.

HLB PARCEL #	HLB INVENTORY ACRES*	GIS COMPUTER CALCULATED ACRES*	HLB INVENTORY USES	GAP PROPOSED USES
6-036	207.76	207.42	golf course; wetlands	commercial recreational; open space
6-039	69.89	72.65	residential; wetlands	residential; open space
6-058	4.93	within 6-039	see adjacent uses	open space
6-061	157.10	157.18	residential; wetlands	open space
6-062	140.00	139.94	residential	commercial recreational; open space; reserve
6-076 thru 6-247	84.9	105.73	golf course	commercial; commercial recreational; public lands & institutions

\*Differences exist between the HLB Inventory acres and the GIS computer calculated acres due to the possible errors resulting from manually digitizing the property boundaries. HLB Inventory acres are based on the patents and plats of record.

Proposed Land Use Definitions

The Girdwood Area Plan (GAP) identifies and defines land uses for the Girdwood Valley, including the HLB managed property within the study area for the proposed golf course and related development:

**Commercial recreational** "...is for areas substantially developed with recreation facilities for which there is a fee or charge for use and are expected to remain so for the duration of this Plan, and for vacant areas best suited for commercial recreation development."

**Commercial** "...is for areas substantially developed for commercial purposes and are expected to remain so for the duration of the Plan, and for vacant areas best suited to commercial development."

**Single family residential** "...is for areas substantially developed for single-family residential purposes and are expected to remain so for the duration of the Plan, and for vacant areas best suited for single family residential use."

**Open space** "...is for areas whose environmental characteristics or functions should be protected, areas which are physically unsuitable or unsafe for development, and/or areas which have high scenic/wildlife habitat values."

**Public Land and Institutions** "...is for areas substantially developed for active public and institutional purposes and are expected to remain so for the duration of the Plan."

Proposed Commercial Designated Land Within The Study Area

The study area is impacted by the proposed land uses identified in the GAP. Future development, including the golf course and related development, will be subject to review for consistency with the GAP. As such, the GAP is responsible, in part, for reducing some of the available area for development within the study area. Within the parameters of the GAP, there are twenty-five (25) acres designated for commercial development. However, approximately 8 acres are within the 536 acre project study area. This use designation is concentrated in one area located at the northern end of the "Squirrel Cage" Subdivision.

Currently the 8 acres designated for commercial development are vacant and unimproved. Commercial development at this site would be required to be related to the golf course, to blend with the architectural and design elements of the golf course and entire Valley development, and to be designed and constructed in a manner so as to enhance the environment and scenic vistas.

The specific uses of the commercial space will likely be the subject of public review and comment through the master development plan process.

Related Residential Community

The Municipality's Request For Proposals (RFP) will provide for the possibility of a residential related community being developed along with the golf course. The Municipality is willing to consider disposal of municipal land for residential development related to the golf course. It is anticipated that some residential development will occur so that the residences have frontage on, and provide the residents direct access to, the golf course.

As defined by the GAP, a residential community developed in conjunction with the golf course would likely be located on land designated commercial recreational or open space. Outside of the study area, to the southeast, the area designated as development reserve may also provide future options for this type of development.

Proposed Residential Designated Land Within The Study Area

Related development would be limited to those areas classified through the GAP as commercial, industrial, and/or residential. The GAP provides for residential development only on the western edge of the study area in HLB Parcel 6-039. There are 14 acres of proposed single family residential property located along the Alyeska Highway. Due to environmental restrictions and sensitive areas immediately adjacent to and east of this area, this proposed residential property will undoubtedly not be adjacent to developed golf course fairways.

Three lots within the "Squirrel Cage" Subdivision are designated as residential. These three lots are currently owned by private landowners. At this time, it is the Municipality's interest that these lots be purchased and conveyed to the Municipality. For any development to occur in the Squirrel Cage area, it is anticipated that the developer will re-plat the entire area, including the subdivision. The development must be cognizant of the impacts to these three private lots, if they remain in private ownership.

Other Land Uses

The Girdwood Industrial Site an industrially zoned site in the lower Girdwood Valley. This is a 22.82 acre area classified for industrial land uses. It is located between California and Glacier Creeks, adjacent to the Alyeska Highway. Access to the Site is from Raune Drive.

Public Lands and Institutions (PLI) designated land is located at the northern end of the existing "Squirrel Cage" Subdivision, and along the eastern edge of the Girdwood Industrial Site. This designation, in these two locations, contains thirteen (13) acres of land in the study area.

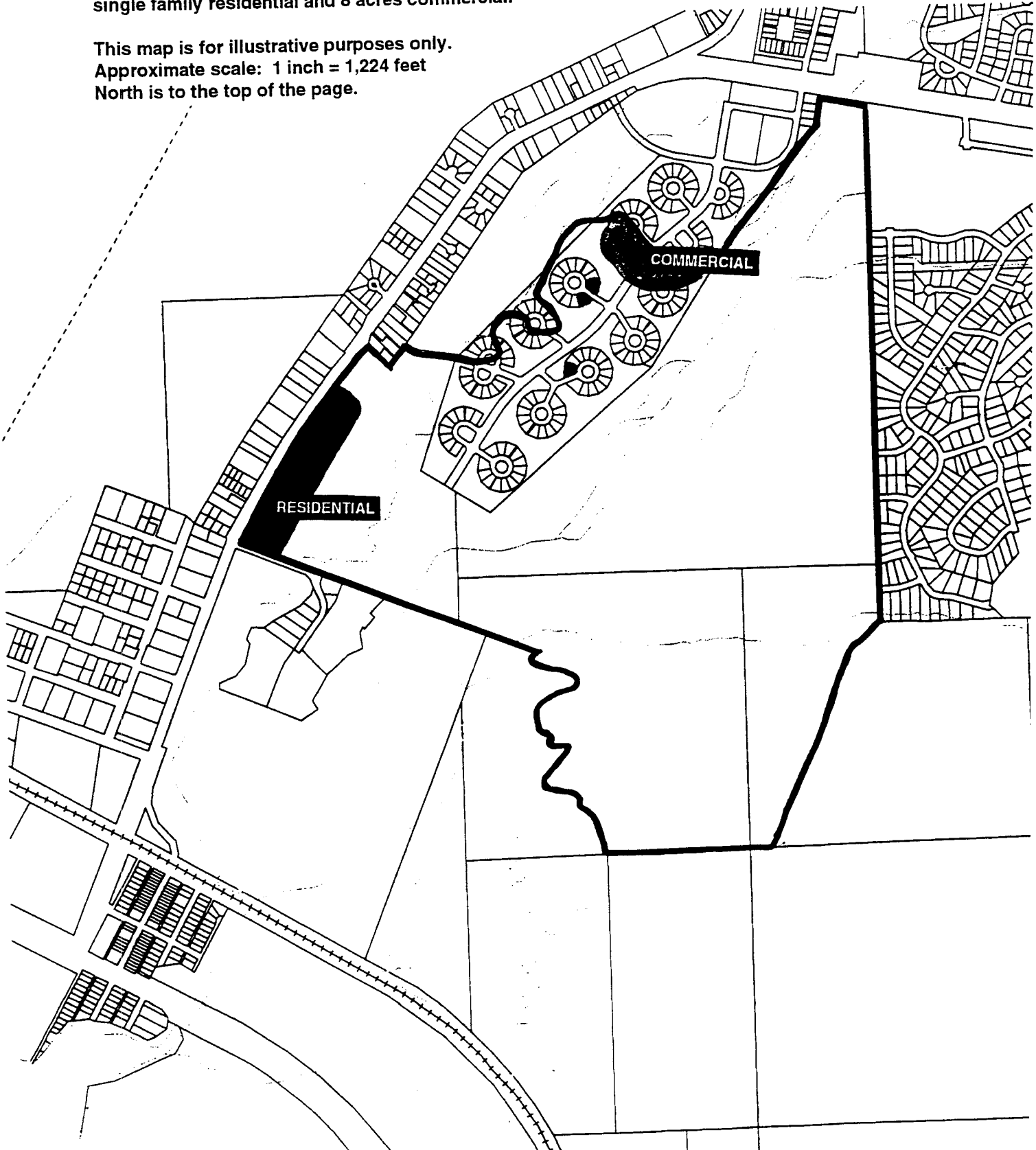


## 9. LAND USE -- RESIDENTIAL and COMMERCIAL

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the study area with the land use classifications as residential and commercial. This area contains approximately 14 acres of single family residential and 8 acres commercial.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA

INFORMATION BROCHURE HANDOUT SERIES  
NUMBER TEN OF FOURTEEN

**LAND USE -- COMMERCIAL RECREATIONAL, OPEN SPACE**

Background

The study area consists largely of vacant, unsubdivided property owned by the Municipality of Anchorage and managed by the Municipality's Heritage Land Bank (HLB). The property managed by the Heritage Land Bank is known as HLB Parcels 6-036, 6-039, 6-058, 6-061, 6-062, and 6-076 through 6-247. The 1988 and the 1993 Heritage Land Bank Inventory, adopted by the Anchorage Assembly, identified future and proposed uses for the land. The Girdwood Area Plan (GAP), adopted by the Assembly, identifies mostly commercial recreational and open space uses for the land in the study area.

HLB PARCEL #	HLB INVENTORY ACRES*	GIS COMPUTER CALCULATED ACRES*	HLB INVENTORY USES	GAP PROPOSED USES
6-036	207.76	207.42	golf course; wetlands	commercial recreational; open space
6-039	69.89	72.65	residential; wetlands	residential; open space
6-058	4.93	within 6-039	see adjacent uses	open space
6-061	157.10	157.18	residential; wetlands	open space
6-062	140.00	139.94	residential	commercial recreational; open space; reserve
6-076 thru 6-247	84.9	105.73	golf course	commercial; commercial recreational; public lands & institutions

\*Differences exist between the HLB Inventory acres and the GIS computer calculated acres due to the possible errors resulting from manually digitizing the property boundaries. HLB Inventory acres are based on the patents and plats of record.

Proposed Land Use Definitions

The Girdwood Area Plan (GAP) identifies and defines land uses for the Girdwood Valley, including the HLB managed property within the study area for the proposed golf course and related development:

**Commercial recreational** "...is for areas substantially developed with recreation facilities for which there is a fee or charge for use and are expected to remain so for the duration of this Plan, and for vacant areas best suited for commercial recreation development."

**Commercial** "...is for areas substantially developed for commercial purposes and are expected to remain so for the duration of the Plan, and for vacant areas best suited to commercial development."

**Single family residential** "...is for areas substantially developed for single-family residential purposes and are expected to remain so for the duration of the Plan, and for vacant areas best suited for single family residential use."

**Open space** "...is for areas whose environmental characteristics or functions should be protected, areas which are physically unsuitable or unsafe for development, and/or areas which have high scenic/wildlife habitat values."

**Public Land and Institutions** "...is for areas substantially developed for active public and institutional purposes and are expected to remain so for the duration of the Plan."

Proposed Commercial Recreational Designated Land Within The Study Area

The study area is impacted by the proposed land uses identified in the GAP. Future development, including the golf course and related development, will be subject to review for consistency with the GAP. As such, the GAP is responsible, in part, for reducing some of the available area for development within the study area.

Within the golf course study area there are 274 acres classified as commercial recreational. This is fifty-one (51) percent of the property. It is the commercial recreational designated property within the study area which will be the focal point for the golf course development.

Proposed Open Space Designated Land Within The Study Area

The study area contains 240 acres of open space. There is more land designated for commercial recreational uses than for open space according to the GAP. In excess of forty-four (44) percent of the property within the study area is listed as open space in the GAP.

Open space, as defined in the GAP, protects areas whose environmental characteristics or functions are sensitive, areas which are physically unsuitable for development, and/or areas which have high scenic/wildlife habitat values. While the definition does not preclude development, it may not be able to favor development in specific areas. Further site specific research must be conducted, depending upon the developer's proposed plan.

The Heritage Land Bank will require that the golf course provide enhancement to the environment by incorporating areas for conservation and promotion of fish/wildlife habitat, and for protection of sensitive environmental areas. The majority of this may occur on land designated as open space, based upon the definition of that designation given in the GAP. While the classified open space may not be suitable or available for development of the golf course and related development, it may be ideal for mitigation projects or facilities which focus on the enhancement of environmental features of the lower Girdwood Valley.

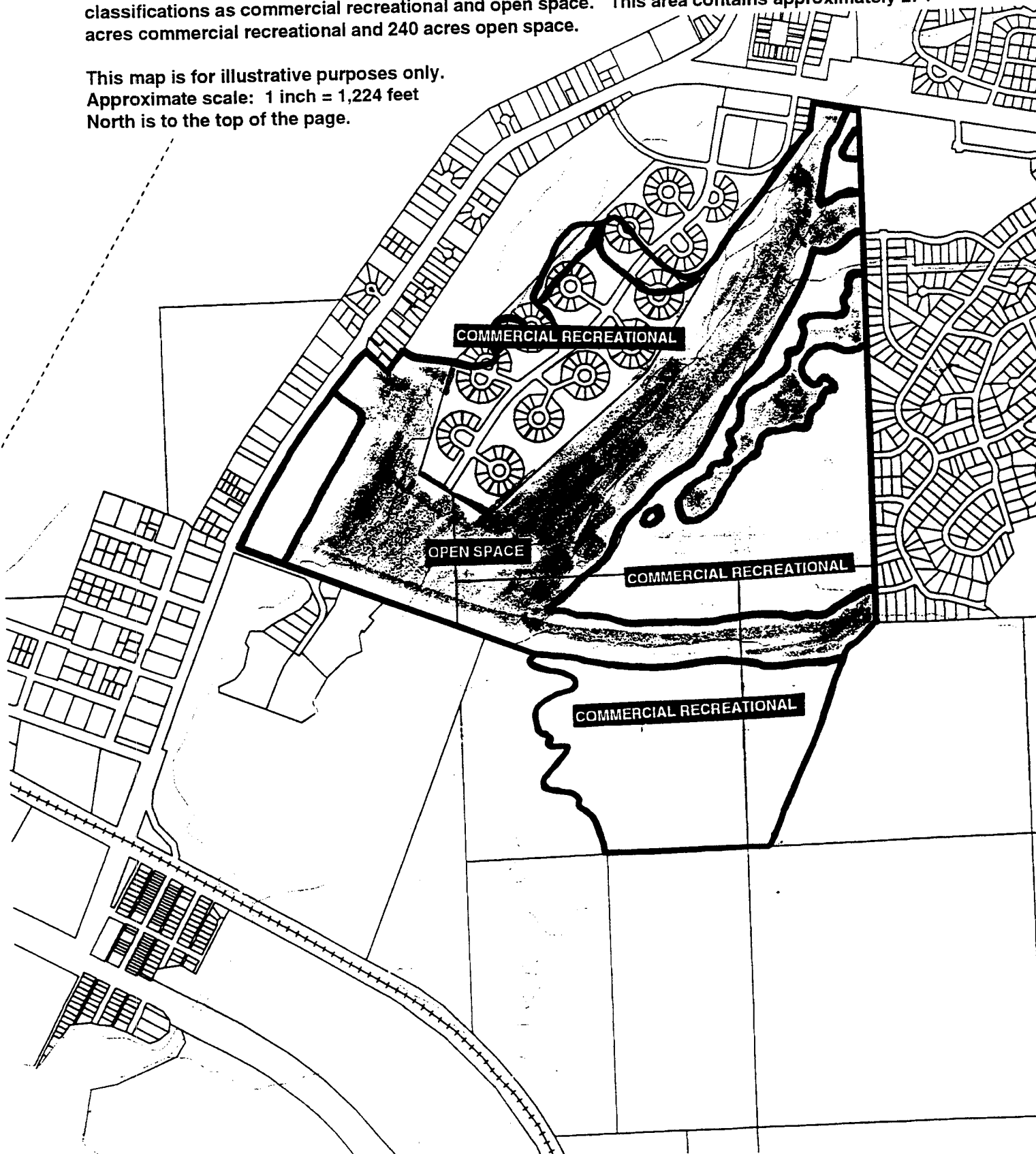
The accompanying map highlights those areas within the study area which are designated as commercial recreational and those designated as open space.

## 10. LAND USE -- COMMERCIAL RECREATIONAL, OPEN SPACE

### INFORMATION BROCHURE HANDOUT SERIES

The shaded area identifies the property included within the study area with the land use classifications as commercial recreational and open space. This area contains approximately 274 acres commercial recreational and 240 acres open space.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**INFORMATION BROCHURE HANDOUT SERIES  
NUMBER ELEVEN OF FOURTEEN**

**ILLUSTRATIVE GOLF COURSE ROUTING PLAN**

**Background**

A golf course in Girdwood would be the fourth eighteen hole course within the Municipality of Anchorage. Existing 18 hole courses include Moose Run, Eagleleglen, and the Anchorage Golf Course (O'Malley). Russian Jack is a nine hole course. Tanglewood Lakes, a nine hole executive par 3 course was recently constructed in Anchorage and is anticipated to open in May, 1996. In addition, other golfing opportunities exist north in Wasilla and Palmer. Palmer's municipal course is 18 holes while Settler's Bay is currently expanding from its original nine to 18 holes. The following table identifies the market information identified by the National Golf Foundation in their 1992 study of the feasibility of a golf course in Girdwood.

AREA GOLF COURSE COMPARISON - 1992			
Golf Course	Type of Course	1992 Total Rounds	Utilization Percentage
Anchorage	18 hole/Municipal	30,000	100%
Eagleleglen	18 hole/Military	32,000	100%
Moose Run	18 hole/Military	34,000	100%
Russian Jack	9 hole/Municipal	11,000	100%
Palmer	18 hole/Municipal	25,000	83%
Settlers Bay	9 hole/Daily Fee	12,000	100%

Source: National Golf Foundation

Interest in golf has had a long history in Anchorage. Interest in a golf course in Girdwood began in 1965. In 1986, the Girdwood Board Of Supervisors (GBOS) requested that the Municipality research the potential of building a golf course on municipal land in Girdwood. This request was in conjunction with the development of the new Girdwood Townsite.

In 1982, Weiskopf/Golforce, Inc. studied the feasibility and potential for a golf course in the Anchorage Bowl area. They studied the possibility at Point Woronzof, Point Campbell, Section 16, and the Campbell Tract. As a result of the study, an eighteen hole municipal course was located in Section 16, on O'Malley Road in the Anchorage Bowl.

In May, 1984, with the establishment of the Heritage Land Bank in 1983, the Municipality completed the Heritage Land Bank Inventory Study - A Report On Municipal Lands. This report identified the municipal property being managed by the Heritage Land Bank. Specifically, the Study identified uses for the properties as a result of public input taken during public hearings. Based upon public comments, the "Squirrel Cage" subdivision, in the lower Girdwood Valley, was identified as being a possible golf course site.

In 1987, Ott Water Engineers provided the Heritage Land Bank with two alternative golf course routing plans. One plan was for a proposed course within the study area currently being address as a proposed site for a golf course and related development. The other was for a proposed course north of the existing Girdwood Corporate Boundary, located on land owned by the federal government

In 1988 the Heritage Land Bank (HLB) produced the Heritage Land Bank Inventory 1988. Again, the Inventory was the subject of public hearings. It specified uses for all Heritage Land Bank properties. The Inventory also identified the "Squirrel Cage" area and HLB Parcel 6-036, east of the Squirrel Cage, as being a possible golf course site. Also, HLB Parcels 6-061 and 6-062, southeast of the possible golf course site, were identified for residential development.

In 1990, as part of Dave Hamre's Glacier Valley Resort Concept Plan, discussion of a golf course on HLB property in the lower Girdwood Valley was discussed. Even though this Plan focused on the merits of a four season international destination resort in the upper Valley, it discussed the golf course as a key summer element of the resort complex.

In September, 1992, the Municipality hired the National Golf Foundation (NGF) to author A Feasibility Study for an 18-Hole Golf Course to be Located in Girdwood, Alaska. This study analyzed the demographics and economy of the area, to assess the needs for a facility in Girdwood. In February, 1993 the HLB again produced the Heritage Land Bank Resource Inventory 1993. Three public meetings were held by the Heritage Land Bank Advisory Commission and two by Assembly. The public reviewed the plans for HLB property and again the "Squirrel Cage" and HLB Parcel 6-036 were identified as a possible site for a proposed golf course. The HLB Inventory was adopted by the Assembly.

In February, 1995 the Municipality completed the Girdwood Area Plan (GAP). The GAP identified the HLB property containing the "Squirrel Cage" and HLB Parcel 6-036 for commercial recreational land uses. The definition contained in the GAP for commercial recreational designated property states Commercial recreational "...is for areas substantially developed with recreation facilities for which there is a fee or charge for use and are expected to remain so for the duration of this Plan, and for vacant areas best suited for commercial recreation development." A golf course would comply with this definition.

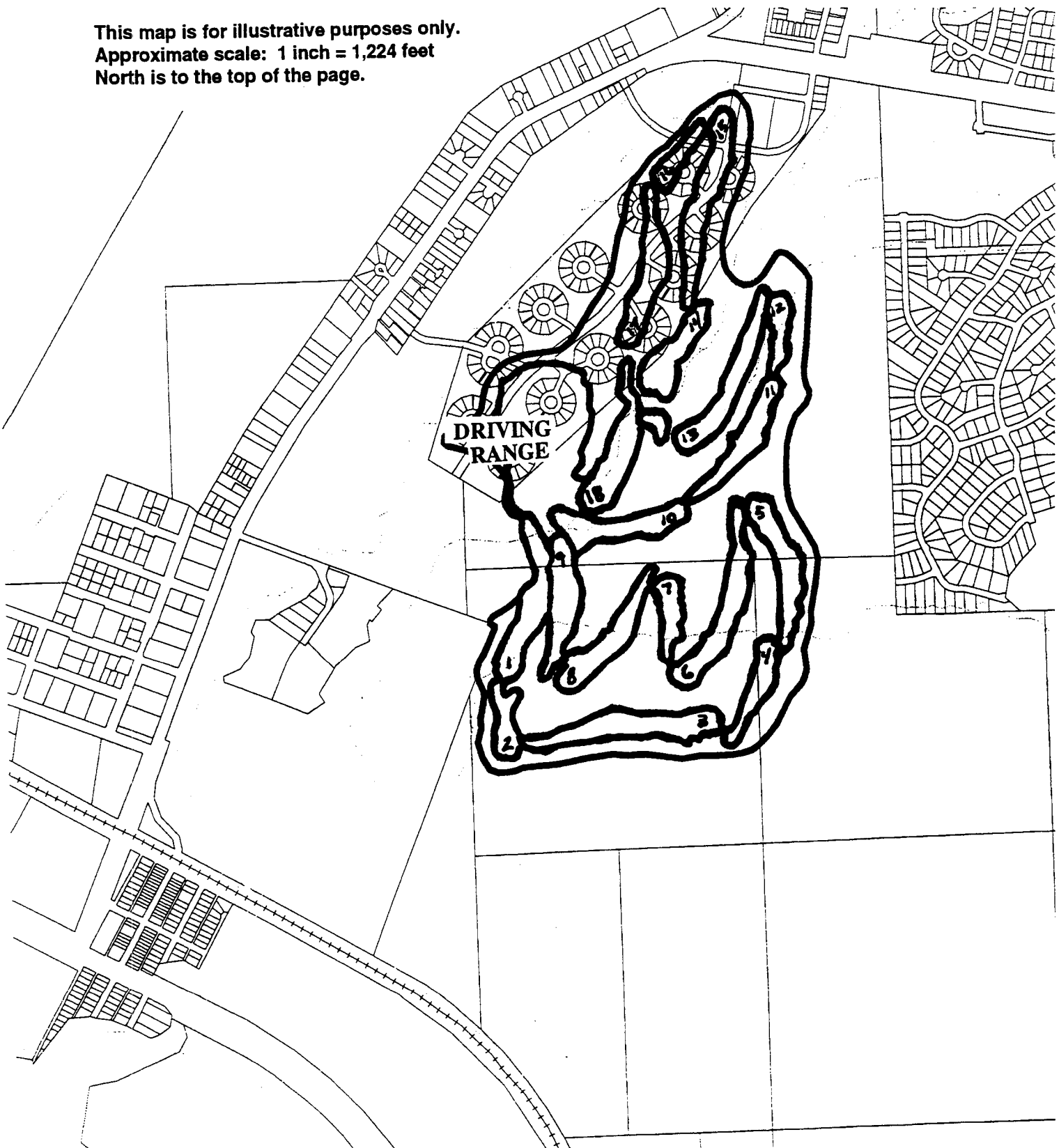
The accompanying map illustrates the draft routing plan identified by Ott Water Engineers and Robert Trent Jones in 1987. This routing plan is provided for illustrative and informational purposes only. Since this routing plan was developed, the Girdwood Area Plan classified some of the property for uses that would not be compatible with a golf course, such as commercial development. The illustrative routing plan is included here merely to show the relative size and configuration of an 18 hole professional championship golf course. This particular illustration is largely impractical, given the known development constraints. However, this plan is useful because it reveals the approximate size of an 18 hole course in relation to the area. It is also useful to note the significant amount of area between the proposed fairways, and also how the routing plan integrates and enhances the environmentally sensitive and critical area through the golf course development. This is not an approved or suggested routing plan.

## 11. ILLUSTRATIVE GOLF COURSE ROUTING PLAN

### INFORMATION BROCHURE HANDOUT SERIES

The outlined area identifies the illustrative golf course routing plan provided for a potential golf course in the lower Girdwood Valley. This illustrative routing plan was the 1982 product of Ott Water Engineers and Robert Trent Jones II. This area contains approximately 295.93 acres.

This map is for illustrative purposes only.  
Approximate scale: 1 inch = 1,224 feet  
North is to the top of the page.



## FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT IN GIRDWOOD, ALASKA

### INFORMATION BROCHURE HLANDOUT SERIES NUMBER TWELVE OF FOURTEEN

## FISH AND WILDLIFE

#### Background

The study area in the southern Girdwood Valley is largely undeveloped property is used by a wide variety of Alaskan fish and wildlife. Waterfowl and other birds frequently use the area. Large mammals including moose, black bear, and brown bear occasionally use the area. Salmon and dolly varden swim the flowing waters crossing the property. Beavers maintain a presence in the lower end of the property, mainly along Virgin Creek.

The animals that live on, use, or cross the property are a great asset to the community. Design of the development must retain or enhance essential fish and wildlife habitat.

#### Fish

The three creeks in the Girdwood Valley within the study area have been specified as being important for the spawning, rearing or migration of anadromous fish pursuant to Alaska Statute 16.05.870(a). Glacier Creek supports Chinook, sockeye, chum, pink, and coho salmon as well as resident Dolly Varden. Based on information available from the State of Alaska, Department of Fish and Game, most of the known salmon spawning beds are upstream, north, of the study area.

California Creek has also been specified as being important for the spawning, rearing, or migration of anadromous fish. It supports Chinook, sockeye, chum, pink, and coho salmon as well as resident Dolly Varden.

Virgin Creek, too, has been identified as being important for spawning, rearing, or migration of anadromous fish, too. Most of the critical habitat influenced by Virgin Creek is contained within the wetland areas immediately south of the study area. While Virgin Creek is not known for any of the salmon species, it is home for resident Dolly Varden.

The most significant spawning areas for Glacier and California Creeks are north of the Alyeska Highway. Most of the spawning occurs in clearer running tributaries and/or their confluences. The spawning takes place away from the glacially fed, braided streams.

Little is known about spawning in Glacier Creeks south of the Alyeska Highway and north of the Alaska Railroad Right of Way. There is also little known of salmon spawning in Virgin Creek. As part of the development process, fish and wildlife studies will be requested by the Alaska Department of Fish and Game.

#### Wildlife

A high diversity of wildlife is supported in the Girdwood Valley ecosystem. Moose, black bear and brown bear can be found in the lower Valley. Alaska Department of Fish and Game have documented moose occupying the upper Valley during most of the year, and using the lower Valley for overwintering.



Beaver, mink, river otter, and weasels have been found in the Valley. Squirrels, porcupine, snowshoe hares, voles, and shrews also live in the Valley. Coyotes, wolverine and lynx are rare, but have been sighted.

Birds are abundant in the Valley. Included are bald eagles, golden eagles, hawks, owls, ducks, geese, swans, ptarmigan, spruce grouse, raven, magpie, and song birds. The wetlands are important feeding, nesting, and staging for waterfowl, arctic terns, shorebirds, and raptors.

**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**INFORMATION BROCHURE HANDOUT SERIES  
NUMBER THIRTEEN OF FOURTEEN**

**REGULATING DOCUMENTS**

Background

There are a number of documents which will have a hand in regulating the proposed golf course and related development within the study area -- as well as other development in the Girdwood Valley. The Municipality of Anchorage (MOA), and the Heritage Land Bank (HLB), will require that the regulations and requirements contained within these documents be adhered to and incorporated in response to any development in the Girdwood Valley.

The MOA owns in excess of 5,000 acres in the Girdwood Valley. The process for using and/or developing HLB property is regulated by the Anchorage Municipal Code, as well as a number of plans and reports adopted by the Anchorage Assembly. Each of the regulating documents listed below have embraced a public review process, creating an opportunity for the citizens and residents of Girdwood and Anchorage to have a voice in the pre-development planning stages of any development proposed for municipal land managed by the HLB.

Regulating Documents

The following is partial list of the regulating documents which will be required to be incorporated into future and proposed development in Girdwood. In addition to the general applicable and appropriate federal, state and municipal laws relative to the proposed project, the following specific documents will be required to be incorporated within the development.

**1. Heritage Land Bank Resource Inventory**

The HLB was given management authority over municipal land in the Girdwood Valley in accordance with the Anchorage Municipal Code (AMC) which grants the Mayor the authority to identify specific municipal agencies to manage specific municipal properties. The AMC also requires the HLB to produce an inventory of its property at least once every three years. The Heritage Land Bank Resource Inventory includes a section describing the potential and/or future use of the property, along with management notes for implementation. The Inventory, along with the recommendations of what to do with, or how to manage, HLB property is the subject of public review, scrutiny and comment. It is also the subject of public hearings by the Heritage Land Bank Advisory Commission (HLBAC) and the Assembly. The 1993 HLB Resource Inventory, the most recent version in print, was adopted by the Anchorage Assembly. Copies can be obtained from the Heritage Land Bank for a fee.

**2. Heritage Land Bank Regulations**

The vast majority of the property identified as the possible site for the golf course and related development is municipal property managed by the Heritage Land Bank. This factor will become key in bringing the project to reality. Specific regulations important to the success of the project are: Anchorage Municipal Code (AMC) 25.40, the Heritage Land Bank; AMC Title 25, Public Lands; AMC 4.60.200, the Heritage Land Bank Advisory Commission; AIM 45-95, the Heritage Land Bank land disposal policies. Copies can be obtained from the Heritage Land Bank.

### 3. Land Transfer and Conveyance Documents

The property included within the study area identified as potentially available for golf course and related development is owned by the Municipality of Anchorage and managed by the Municipality's Heritage Land Bank. The following table identifies the applicable conveyance documents. Copies of these, and conveyance documents for all other municipal property, are on file with the Heritage Land Bank and available to the public for a fee.

LAND CONVEYANCE DOCUMENTS					
HLB #	Acres	Patent	Date	Patented Creek Setbacks	Other Restrictions?
6-036	207.76	5451	1/30/81	Glacier, California, Virgin	Yes
6-038	40.35	0756	1/30/81	None	Yes
6-039	69.89	5451	1/30/81	Glacier, California, Virgin	Yes
6-057	172.74	5451	1/30/81	Glacier, California, Virgin	Yes
6-058	4.93	5451	1/30/81	Glacier, California, Virgin	Yes
6-061	157.10	5451	1/30/81	Glacier, California, Virgin	Yes
6-062	140.00	5451	1/30/81	Glacier, California, Virgin	Yes
6-076 thru 6-247	84.90	0756	1/30/81	None	Yes

While the land conveyed under Patent 756 does not include patented setbacks of 200 foot wide lineal perpetual public easement along both sides of the line of ordinary high water mark of California and Glacier Creeks, and 25 foot wide lineal perpetual public easement along both sides of Virgin Creek, it will be a requirement of the Heritage Land Bank that the setbacks on land conveyed under Patent 5451 be applied throughout the project area.

### 4. Anchorage Municipal Code Title 21

Anchorage Municipal Code (AMC) Title 21 is entitled "Planning and Zoning". This portion of the AMC contains all the local municipal regulations and references to land use planning issues. Included are zoning issues, the Comprehensive Plan, subdivision standards, development regulations, variances, conditional use permits, enforcement and appeals. Proposed development is required to follow the requirements and regulations set forth in Title 21. Copies of Title 21, or any portion of the Anchorage Municipal Code, may be obtained from the Municipal Clerk.

Within AMC 21.05.030 specific elements of the Comprehensive Plan are listed. These individual elements, as applicable to this development project in Girdwood, must be considered and complied with by the developer. Some of these individual elements are listed elsewhere within this list of regulatory documents. In Part, these include: Turnagain Arm Comprehensive Plan; Coastal Zone Management Plan; Street and Highway Landscape Plan; Anchorage Trails Plan; Official Streets and Highways Plan; Anchorage Wetlands Management Plan; Anchorage Park, Greenbelt and Recreation Facility Plan; the Utility Corridor Plan; and, the Girdwood Area Plan.

### 5. Home Rule Charter

On September 16, 1975 the Anchorage Area Charter Commission authored The Home Rule Charter For The Municipality of Anchorage, Alaska. Although revised over the years, the Home Rule Charter (HRC) establishes all powers of the local government. Copies may be obtained from the Municipal Clerk.

### 6. Girdwood Area Plan

In December, 1979 the Anchorage Assembly adopted the Turnagain Arm Comprehensive Plan. The Plan establishes guidelines for the orderly development of communities along the Turnagain Arm, including Girdwood. In 1994 the Department of Community Planning and Development (DCPD) finalized the Girdwood Area Plan (GAP) and had it adopted by the Assembly. The subject of public meetings, review,

scrutiny, comment, and hearings, the GAP establishes the policy guidelines for development in the Girdwood Valley. It is intended to guide decisions affecting land development and the management of public lands there. As a policy document, it outlines general strategies for land development and the installation of major public facilities and services, including water, sewer, transportation, parks, and trails. It also provides the basic strategy for disposal of municipal land, as well as the conservation and protection of certain natural resources and environmentally sensitive areas. Copies can be obtained from the Department of Community Planning and Development.

#### **7. Anchorage Wetlands Plan**

The Anchorage Wetlands Plan (AWP) is in transition. The AWP was originally adopted by the Anchorage Assembly during April, 1982. During 1995 the Municipality of Anchorage presented the AWP 10 Year Revision to the Assembly for adoption. After public review, comment, and hearings, the Assembly postponed their public hearings until February 13, 1996. On February 13, 1996 the Assembly is scheduled to take public testimony on AO 95-129, an ordinance adopting the AWP 10 Year Revision. The AWP currently adopted is the 1982 Plan. However, during public testimony to the Anchorage Assembly, the Corps of Engineers (COE) stated that the state and federal review agencies are using the updated information which was the basis for the 1995 AWP. The updated information created a number of changes from the 1982 to the 1995 Plan. Some of these changes included re-classification of wetlands, analysis of areas and classification of wetlands for the 1995 Plan which were not included in the 1982 Plan, and changes for maintaining consistency with the State Coastal Zone Management regulations. Since the 1982 AWP is the plan of record, but the federal and state agencies are reviewing wetlands issues with the 1995 data base, it is imperative that those interested in this development have a complete understanding of each plan, as the development is required to be consistent with these AWP's. These plans can be obtained from the Department of Community Planning and Development.

#### **8. Anchorage Park, Greenbelt and Recreation Facility Plan Volume 3**

On December 17, 1985 the Anchorage Assembly passed and approved AO 85-188 adopting the Anchorage Park, Greenbelt and Recreation Facility Plan. Volume 3 of that Plan discusses the Turnagain Arm portion of the Municipality. The principle objective of the Plan is to develop a park and open space element for development so as to maintain the rural to suburban land use patterns initially developed along the Turnagain Arm. The Plan indicates it is a tool to assist the valley communities in shaping the way their neighborhoods look and fit into their lifestyle by providing buffers to woodlands between adjacent developed land parcels, maintaining stream corridors, integrate trails, and maintain rural and open space values. The Plan can be obtained from the Department of Community Planning and Development.

#### **9. Official Streets and Highways Plan**

The Official Streets and Highways Plan (OSHP) identifies the general location and functional classification of roads in Anchorage. This plan identifies the existing and proposed roadways in Anchorage for twenty years. The current OSHP was adopted in 1986. Currently the Department of Community Planning and Development is developing a new, revised version of the plan. Copies of the OSHP may be obtained from the Department of Community Planning.

#### **10. (Proposed) Anchorage Trails Plan**

In 1985, the plan was adopted by the Anchorage Assembly. Planning Department staff have assembled a draft 1995 plan which has been the subject of public review, comment, and hearings. Revisions are currently being made on the study. Once these revisions are reviewed and the plan is adopted by the Alaska Department of Transportation, the plan will once again be the subject of public review, comment, and hearings before the Anchorage Assembly. The Assembly hearings are anticipated to be held in the beginning of 1996. Copies of the proposed plan can be obtained from the Department of Community Planning and Development.

### **11. Utility Corridor Plan**

The Utility Corridor Plan is to establish joint use corridors for future utility transmission lines with minimal environmental disruptions. The incorporation of trails, roads, and different utility systems into joint use corridors generally contributes to an efficient pattern of land use. Copies of this report can be obtained from the Department of Community Planning and Development.

### **12. Coastal Zone Management Plan**

The current Coastal Zone Management (CZM) plan was adopted by the Anchorage Assembly in 1979.

### **Advisory Documents**

The following is a partial list of documents to be considered advisory. These documents have not been adopted by the Anchorage Assembly and do not carry any force of law or required compliance. However, these documents should be considered exceedingly important in revealing relevant information and local ideas, comments, and desires.

#### **1. A Feasibility Study For An 18-Hole Golf Course To Be Located In Girdwood**

In 1993 the National Golf Foundation (NGF) completed a contract with the HLB for analyzing the feasibility of a golf course in Girdwood. NGF analyzed the development of an 18 hole, championship length golf course, and appropriate supporting clubhouse and maintenance facilities. Copies are available from the Heritage Land Bank for a fee.

#### **2. Golf Course Study For The Municipality Of Anchorage**

In 1982, Weiskopf/Golfcorp, Inc. prepared a study to evaluate potential golf course sites in Anchorage. After the completion of this report, a golf course was developed in Section 16. The course is the municipal golf course accessed off O'Malley Road. Copies of this report may be obtained from the Heritage Land Bank.

#### **3. Ott Water/Robert Trent Jones Alternate Golf Course Route Plans**

In 1987, Ott Water Engineers provided the Heritage Land Bank with two alternative golf course routing plans. One plan was for a proposed course within the study area currently being address as a proposed site for a golf course and related development. The other was for a proposed course north of the existing Girdwood Corporate Boundary, located on land owned by the federal government. Copies of this report, and routing plan maps, may be obtained from the Heritage Land Bank.

#### **4. Girdwood Community Impact Study**

During 1993 the Municipality hired Kevin Waring Associates to assess four community land use alternatives and determine potential impacts to Girdwood. The land use alternatives were developed by Sno Engineering, Inc. as technically feasible potential resort development scenarios in the northern portion of the Girdwood Valley. Copies of the report are available from the Department of Community Planning and Development.

#### **5. Glacier/Winner Creek Concept Plan**

### **Volume 1: Resort Concept Plan**

Volume 1 as produced for the Heritage Land Bank by Dave Hamre Associates in April, 1990. This report envisions development of a four-season international destination resort in the northern Girdwood Valley. It identifies nine lifts/cells to serve the ski terrain north of Winner Creek. The basic infrastructure has been identified in this report. This report can be obtained from the Heritage Land Bank for a fee.

## **Volume 2: Economic, Feasibility, and Market Analysis**

In April, 1991, Volume 2 was completed by Heritage Land Bank staff member Joe Yarzebinski, analyzing the economic, feasibility, and market analyses of the resort concept identified in Volume 1. This plan also discusses the salient features of the potential ski mountain, a breakeven analysis, and identifies previous research by other agencies regarding ski development in southcentral Alaska. Copies of this report is available from the Heritage Land Bank for a fee.

### **6. Girdwood Rail Service Feasibility Assessment**

In 1994 this study was prepared by Kevin Waring Associates for the Municipality. The study addressed the feasibility of rail passenger service between points in Anchorage and Girdwood. Copies may be obtained by contacting the Department of Community Planning and Development.

### **7. Alyeska Resort Master Plan**

In 1991 Sno Engineering, Inc. prepared the Alyeska Resort Ski Area Master Plan for Seibu Alaska, Inc. This Plan discusses the existing mountain and support facilities, as well as the proposed future expansions. This Plan discusses the infrastructure, opportunities, environmental determinants, design criteria, proposed development concepts, market research, and resort improvements. For copies of this plan, please contact Seibu Alaska, Inc.

### **8. Turnagain Arm Management Plan**

The State of Alaska completed the Turnagain Arm Management Plan in 1995. This plan establishes guidelines and policy decision points for the management of state lands in the Turnagain Arm area. Copies of this plan can be obtained from the State of Alaska, Department of Natural Resources, Division of Lands.

### **9. Anchorage Indicators Report**

Annually the Municipality produces reports on economic indicators relative to Anchorage's economic growth and development. Historically these were identified as the Economic Indicators Reports. Expanding the information reported on, these became the Anchorage Indicators Reports. The most recent report produced is the 1995 Indicators Report, from April, 1995. Copies may be obtained from the Department of Community Planning and Development.

### **11. Geotechnical Investigation Girdwood Borrow Site. Girdwood, Alaska**

The Municipality hired Harding Lawson Associates (HLA) in 1992 to obtain geotechnical information to determine the suitability of municipal land south of Virgin Creek as a source of gravel. This is known as HLA Project 20482. HLA drilled and sampled 19 borings within a 45 acre area. The borings were approximately 20 feet deep. The site is part of an alluvial fan. the investigation results indicate that the site contains over 500,000 cubic yards of gravel above the water table. The report also indicates that the rate of groundwater flow is believed to be substantial, virtually unlimited recharge by adjacent snowfields, glaciers, and precipitation. Copies can be obtained from the Heritage Land Bank for a fee.

### **12. Materials Report Girdwood To Alyeska. Project #S-0501(1) 9/63**

In 1963 the State of Alaska reported on the results of materials exploration and testing on the reconstruction of the Alyeska Highway. The report discusses the geologic findings. Copies can be obtained from the Heritage Land Bank for a fee.

### **13. Geology and Water Resources of Girdwood-Alyeska Area, Alaska**

In 1974 the US Geological Survey (USGS) provided an evaluation of the water resources within the Girdwood area. The report discusses hydrogeologic setting, occurrence, availability, and quality of ground

water and surface water, and the existing potential water problems of the area. Copies available from the US Geological Survey.

14. **Flood Insurance Study**

This two volume report produced by the Federal Emergency Management Agency provides information and data regarding the floodplains in the area. Hydrologic and hydraulic analyses for the study were performed by the US Army, Corps of Engineers, Alaska District. Copies of the study and maps can be obtained from the Corps of Engineers.

15. **Anchorage Area Soil Survey**

In 1979 the Soil Conservation Service, US Department of Agriculture, prepared an eleven volume series regarding water quality issues in Anchorage. Volume 7 is the soils survey. The soils information contained in the report is based on mapping completed in 1976. Copies of the survey should be obtained from the Soil Conservation Service.

16. **Kenai Road Corridor Soil Survey**

The US Department of Agriculture, Forest Service, completed a survey to provide soil data and interpretations of the data in 1989. This report includes soils information for the major road corridors, including the Alyeska Highway, through the Girdwood Valley. The survey covers an area equal to approximately one-half to three-quarters of a mile on either side of the roads. Copies are available from the Forest Service.

17. **AWWU Water Master Plan**

The Anchorage Water and Wastewater Utility (AWWU) is certified to provide public water to specific portions of the Girdwood Valley. This Plan identifies the areas in which public water may be available. General locations of potential water lines are identified in the Plan. Copies of the Plan are available from the Anchorage Water and Wastewater Utility.

18. **AWWU Wastewater Plan**

The Anchorage Water and Wastewater Utility (AWWU) provides public sewer service to specific portions of the Girdwood Valley. This Plan identifies the areas which are serviced by public sewer. Copies of the Plan are available from the Anchorage Water and Wastewater Utility.

**Studies and Plans Underway**

The following plans and/or studies are currently being developed by the Municipality. They are expected to have a direct influence on any future development within the study area:

1. **Girdwood Land Use Controls**

2. **Girdwood Transportation Study**

**Other Information Sources**

In addition to the aforementioned regulatory and advisory documents, the following materials should be consulted and incorporated into the master planning and approval process surrounding this project.

1. **Topographic maps**

Maps of the topographic relief of the southern Girdwood Valley are available at a scale of 1 inch equals 100 feet. These maps have a contour interval of 2 feet. Copies can be obtained by contacting the Department of Community Planning and Development.

2. **Color aerial photos**

Blue-line or black-line reproductions of aerial photographs of the southern Girdwood Valley are available by contacting the Department of Community Planning. These blue/black-lines of 1989 aerals are available at a scale of 1 inch equals 500 feet. More recent aerals, or color aerals are available Aeromap US, Inc.



FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA

INFORMATION BROCHURE HANDOUT SERIES  
NUMBER FOURTEEN OF FOURTEEN

**LOCAL PUBLIC AGENCIES**

Background

Commercial recreation development in the southern Girdwood Valley will be subject to the review and approval of a number of governing bodies. These bodies may have input into the development process, and may directly impact the proposed development. The following agencies have a role in the process:

**The Municipality Of Anchorage**

Within the Municipality of Anchorage (MOA) the developer will be coordinating with a number of departments. To obtain the property and identify its uses, the developer will become involved with the **Heritage Land Bank** and the **Department of Community Planning and Development**. For issues on public water or sewer, the developer will coordinate with the **Anchorage Water and Wastewater Utility**. The **Department of Public Works** will become involved in issues from issuance of subdivision agreements to applicable inspections. Coordination of greenbelts and parkland will involve the **Department of Cultural and Recreational Services** and the Girdwood Board of Supervisors. Health issues related to air and water quality, as well as food and public facilities, will involve the **Department of Health and Human Services**.

**Heritage Land Bank Advisory Commission**

Anchorage Municipal Code (AMC) Title 25.40 establishes the Heritage Land Bank (HLB). The HLB is one agency within the Municipality which has been granted management authority over municipal property. The HLB has management authority over almost all of the approximately 5,000 acres of municipal property in the Girdwood Valley. The golf course and related development is identified to be located on HLB property. Providing advice to the Mayor and the Assembly about the tasks of the HLB is the Heritage Land Bank Advisory Commission (HLBAC). The HLBAC is a seven member volunteer board of professionals. AMC 4.60.200 establishes the HLBAC to "...advise the Mayor and Assembly on matters pertaining to the acquisition, management, and disposal of municipal property in the Heritage Land Bank..." Prior to any proposed development being established on HLB property, or prior to any disposal of HLB land by sale or lease to a developer, the HLBAC must provide the Assembly and the Mayor with a recommendation. The proposed development will be the subject of public meetings and hearings held by the HLBAC.

**Anchorage Assembly**

The Anchorage Assembly is the legislative body of the Municipality of Anchorage. AMC Title 2 establishes the Assembly to preside over all issues which require an ordinance, local law. The proposed development will be the subject of public hearings held by the Assembly. Issues from the Heritage Land Bank Advisory Commission, Planning and Zoning Commission, and Platting Board will come before the Assembly. The Assembly will act on issues involving the disposal of HLB lands for the development, land use issues, platting issues, and changes to the Girdwood Area Plan.

### **Girdwood Board Of Supervisors**

AMC 27.20.110 establishes the Girdwood Valley Service Area Board of Supervisors (GBOS). The GBOS consists of four persons elected by the Girdwood voters and one member appointed by the Mayor. In accordance with AMC 27.30.020 the GBOS is responsible for street construction, street maintenance, solid waste collection, fire protection, and parks and recreation. The proposed development may be the subject of public meetings held by the GBOS.

### **Planning and Zoning Commission**

AMC 4.40.100 establishes the Planning and Zoning Commission to "...exercise the powers and duties more particularly set forth in Title 21 of this Code." Title 21 contains all the local municipal regulations and references to land use planning issues. Portions of the proposed development may require public hearings before the Planning and Zoning Commission.

### **Platting Board**

AMC 4.40.110 establishes the Platting Board to "...exercise the powers and duties more particularly set forth in Title 21 of this Code." The proposed development will be subject to public hearings held by the Platting Board.

### **Girdwood Area Land Use Task Force**

The Girdwood Area Land Use Task Force is a volunteer board established in 1995 by the Mayor. They were established to provide the Mayor's office with direct input on issues concerning Girdwood. The seven member group consists of two members of the GBOS, two members of the HLBAC, two members of the Planning and Zoning Commission, and one Girdwood resident, at large. The proposed development will be the subject of discussion and public meetings of this group.

### **Other**

In addition to these local public agencies, there are a number of other public agencies at the state and federal level which may become involved. The involvement of the following agencies will depend on the issues related to the proposed development. Some of the other public agencies include: US Army Corps of Engineers; United States Geologic Survey; Environmental Protection Agency; United States Forest Service; Alaska Department of Fish and Game; Alaska Department of Environmental Conservation; and Alaska Department of Natural Resources.

**FOUR SEASON COMMERCIAL RECREATION DEVELOPMENT  
IN GIRDWOOD, ALASKA**

**KEY AGENCY CONTACTS  
FOR ADDITIONAL INFORMATION**

The following agencies may be contacted for additional information and assistance:

**FOR INFORMATION ON GIRDWOOD, ALASKA**

Contact the Girdwood Board of Supervisors, PO Box 870390, Girdwood, Alaska 99587 907/762-3118  
The GBOS meets the 3rd Monday of each month at 7:00 p.m.

**FOR INFORMATION ON LAND STATUS**

Contact the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4333  
The HLB is located in Room 800, City Hall, 632 West 6th Avenue, Anchorage, AK

**FOR INFORMATION ON FLOODPLAINS**

Contact the Department of Public Works, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-8250  
The Department of Public Works is located at 3600 Tudor Road, Anchorage, Alaska

**FOR INFORMATION ON STREAM, CREEK AND WATERBODY SETBACKS**

Contact the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4333  
The HLB is located in Room 800, City Hall, 632 West 6th Avenue, Anchorage, AK

**FOR INFORMATION ON THE DEVELOPMENT SUITABILITY**

Contact the Department of Community Planning and Development, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4309  
The Department of Community Planning and Development is located on the Second Floor of City Hall, 632 West 6th Avenue, Anchorage, Alaska.

**FOR INFORMATION ON WETLANDS**

Contact the Department of Community Planning and Development, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4309  
The Department of Community Planning and Development is located on the Second Floor of City Hall, 632 West 6th Avenue, Anchorage, Alaska.

**FOR INFORMATION ON SLOPE**

Contact the Department of Community Planning and Development, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4309  
The Department of Community Planning and Development is located on the Second Floor of City Hall, 632 West 6th Avenue, Anchorage, Alaska.

**FOR INFORMATION ON TRAILS**

Contact the Girdwood Trails Committee, Girdwood Board of Supervisors, PO Box 870390, Girdwood, Alaska 99587 907/762-3118  
The GBOS meets the 3rd Monday of each month at 7:00 p.m.

**FOR INFORMATION ON LAND USE**

Contact the Department of Community Planning and Development, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4309  
The Department of Community Planning and Development is located on the Second Floor of City Hall, 632 West 6th Avenue,

Anchorage, Alaska.

### **FOR INFORMATION ON THE ILLUSTRATIVE GOLF COURSE ROUTING PLAN**

Contact the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4333  
The HLB is located in Room 800, City Hall, 632 West 6th Avenue, Anchorage, AK

### **FOR INFORMATION ON FISH AND WILDLIFE**

Contact the State of Alaska, Department of Fish and Game, Habitat and Restoration Division, 333 Raspberry Road, Anchorage, Alaska 99518 907/344-0541

### **FOR INFORMATION ON REGULATING DOCUMENTS**

Contact the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4333  
The HLB is located in Room 800, City Hall, 632 West 6th Avenue, Anchorage, AK

### **FOR INFORMATION ON PUBLIC AGENCIES**

Contact the Heritage Land Bank, Municipality of Anchorage, PO Box 196650, Anchorage, AK 99519-6650 907/343-4333  
The HLB is located in Room 800, City Hall, 632 West 6th Avenue, Anchorage, AK